Seattle Public Utilities
2009-2011 Water Rate Study

August, 2008

(Notes on following page & Appendix F added January 2009)

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Notes added January 2009:

1. The description of the 2010 bond issue in section 3.2.2 (shown on page 10) should have read "$151 million" rather than "$121 million."

2. Council adopted rates based on lower O&M and CIP spending than in the Mayor's proposal. Council also changed the timing of the Revenue Stabilization Subfund withdrawals. Appendix F contains all of the tables in the document that changed as a result of Council's final approved rates. Source files are:

Model 10062008 passed by EEMU.xls
Water Rate Design 100608 passed by EEMU.xls
Tables for water rates passed by Council.xls

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1. EXECUTIVE SUMMARY

The water system is an enterprise fund of the City of Seattle that is wholly supported by rate and fee revenues related to water service. In any given year, these rates and fees must be sufficient to pay the total costs of the water system and meet adopted financial targets. This total cost is known as the water system revenue requirement. Direct service ("rates") revenues from wholesale and retail customers account for the bulk of water system revenues. Wholesale contracts determine the amount that the City charges for wholesale service in any particular year. Thus, retail water rates and other revenues are the "balancing entries" that generate the difference between each year's total water system revenue requirement and wholesale revenues. For this reason, the retail rate study is performed subsequent to wholesale rate studies.

This study focuses on retail water rates. **Chapter 1** provides an overview of proposed changes to the revenue requirement and their drivers, bill impacts, and projected financial performance assuming proposed rates. **Chapter 2** gives an overview of adopted financial policy targets used in the development of the revenue requirement. **Chapter 3** provides additional detail on the various components of the proposed revenue requirement, including a discussion of demand and the low-income assistance program. These last two elements do not impact the revenue requirement but do have an impact on rates. **Chapter 4** discusses how the proposed revenue requirement is allocated between different customer classes. **Chapter 5** presents proposed rates by customer class, as well as an overview of the rate design, or rate structure, for each class. The appendices present additional supporting data, including the 2009-2011 wholesale rate studies (Appendix B and Appendix C).

The proposed retail rates support increases to the retail rate revenue requirement of $23.4 million in 2009, $9.4 million in 2010 and $12.7 million in 2011, or a total of $45.5 M over the three years. **Table 1-1** presents the change in the revenue requirement and the monthly impact of proposed rate increases on typical residential customers and a sampling of general service customers. The proposed rates will affect general service customers to varying degrees depending on the volume of water used.

Table 1-1
Proposed Water System Revenue Requirement and Bill Impacts

	*2008**	*2009 Proposed*		*2010 Proposed*		*2011 Proposed*	
			Change from 2008		Change from 2009		Change from 2010
Retail Rate Revenue Requirement	$110,817,799	$134,204,909	$23,387,110	$143,603,957	$9,399,047	$156,325,120	$12,721,163
Typical Monthly Water Bills							
Residential	$24.61	$29.05	$4.44	$31.41	$2.36	$34.52	$3.11
Convenience Store	$67.15	$79.28	$12.13	$85.69	$6.41	$94.15	$8.46
Apartment Building	$183.26	$215.94	$32.68	$233.48	$17.54	$256.46	$22.98
Large Industrial	$11,749.67	$13,835.00	$2,085.33	$14,937.67	$1,102.67	$16,389.67	$1,452.00

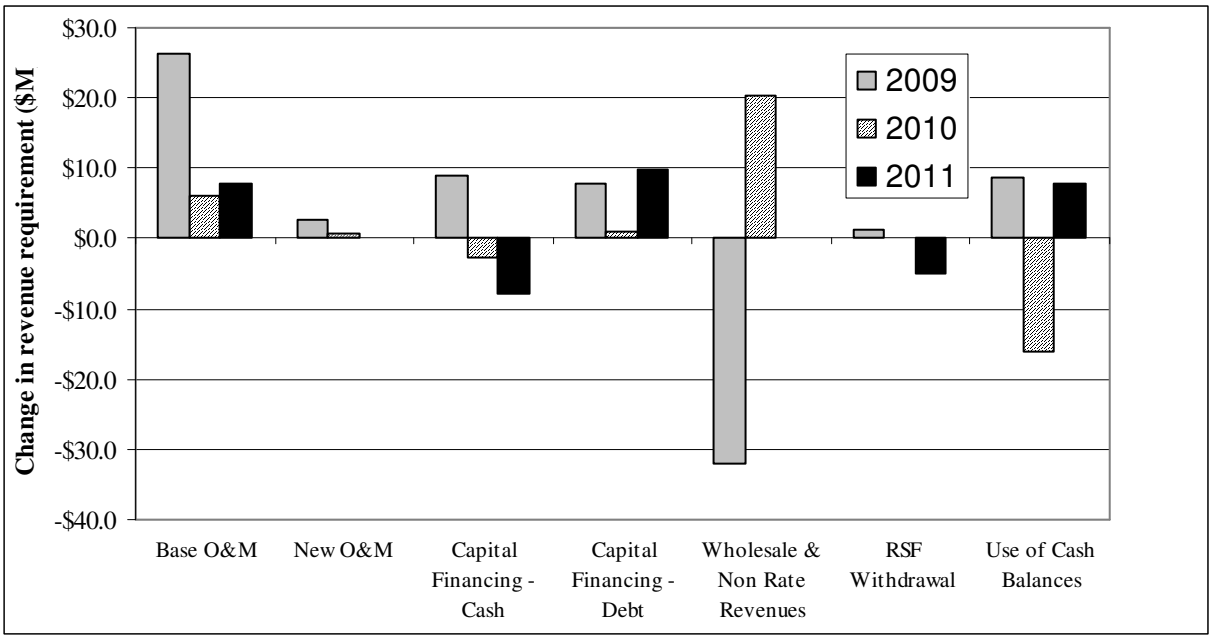
* 2008 amounts are based on the 2006-2008 rate study

The overall water system revenue requirement increases by $60.6 million between 2008 and 2011. As noted above, proposed increases in direct service retail revenue are projected to fund $45.5 M of this increase, with wholesale revenues funding $5.7 and increases in other funding sources (non-rates revenues, rate stabilization fund withdrawals, and use of cash balances) contributing $9.5M. Proposed O&M spending increases, which are due mainly to keeping up with inflation, account for the bulk of

increased spending ($43.7 M) with increases in CIP financing (debt service and cash financing) adding $16.9 M over the three year rate cycle.

The composition of increases in O&M and CIP financing expense vary from year to year as does the amount of the spending increase funded by different revenue sources (rates vs. other funding sources). **Figure 1-1** breaks down, by year, the change in O&M, CIP financing, and funding from other sources. The 2009 amounts represent incremental changes to the 2008 plan in the 2006-2008 rate study.

Figure 1-1
Water Fund Revenue Requirement Drivers



Below is a further description of the drivers presented in Figure 1-1 above.

O&M

Base O&M – The 2009 amount represents significant catching up for inflationary cost increases on existing O&M activities since 2006. As a cost containment measure, the prior rate study assumed 2.5% for each of the three years of the rate period, when actual City COLA adjustments were in the 3.4-3.8 percent range, creating a significant cumulative shortfall. Amounts for 2009 and 2010 are due to inflation in line with current City projections.

New O&M – New O&M is fairly minimal and includes BIPs for items such as Deferred Maintenance, Cedar Filtration & Lake Youngs Water Quality Studies, and Street Repair Costs.

Capital Financing

Capital Financing - Cash – The swings in this rate driver are due to the uneven cash to CIP percentages over the three years of the rate study (23, 20, and 17 percent in 2009, 2010, and 2011, respectively) as well as changes in overall CIP budget from year to year. The higher percentage in 2009 takes advantage

of cash available from the assumed sales of the Eastside Reservoir and an easement to Puget Sound Energy (see "Use of Cash Balance" below).

Capital Financing - Debt Service – This rate study assumes a debt issue of $117 million in late 2008, with debt payments first coming due in 2009. A low-interest loan of $16 million from the State Revolving Fund in 2009 will increase debt service starting that year, and a projected $151 million revenue bond issue in 2010 will further increase debt service in 2011.

Other Funding Sources

Wholesale & Non-rate Revenues – There is a significant jump in both wholesale and non-rate revenues in 2009 as compared to the 2008 amount projected in the 2006-2008 rate study. The largest contributor to this increase is $20 million in asset sales in 2009.

Revenue Stabilization Subfund Withdrawal – The 2006-2008 rate study assumed a withdrawal of $1.15 million in 2008. This rate study assumes a withdrawal in 2011 ($5.0 million), bringing the RSF balance to $9.0 million. No withdrawals are planned for 2009 or 2010.

Use of Cash Balances – This rate study assumes the sale of the Eastside Reservoir and an easement to Puget Sound Energy in 2009 for a total of $20 million. This cash would be held in the main Operating Fund for use towards capital during 2009 and 2010.

The 2009-2011 rate study meets all water system financial policy targets (see Chapter 2 for more detail on targets), as shown in Table 1-2. Average cash financing of the capital program is the overall binding constraint for the three year rate study. Debt service coverage is a second constraint in 2011, which limits the amount of rate smoothing between years.

Table 1-2
Water Fund Projected Financial Performance

	Target	Projected 2008	Proposed 2009	Proposed 2010	Proposed 2011	Proposed 2012	Proposed 2013	Proposed 2014
Net Income ($1,000's)	positive	39	2,068	967	7,017	8,140	5,717	4,436
Debt Service Coverage	1.7x	1.69	1.72	1.81	1.70	1.77	1.71	1.78
Cash Financing of the Capital Program	20%*	32.4%	22.6%	20.0%	16.6%	20.0%	20.0%	20.0%
from Contributions in Aid of Construction		15.4%	13.0%	12.8%	16.6%	15.5%	15.7%	14.6%
from Rate Revenues		16.0%	9.1%	6.6%	0.0%	4.5%	4.3%	5.4%
from Bonneville Power Administration Account		0.9%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%
Year-End Operating Cash ($1,000's)	varies**	6,174	15,000	7,775	8,218	8,506	8,829	9,165
Revenue Stabilization Fund Withdrawal		0	0	0	5,034	0	0	0

* Current revenues should be used to finance no less than 15% of the CIP in any one year, and not less than 20% in each rate proposal
** Year-End Operating Cash Target is 1/12th of the current year's operating expenses

2. FINANCIAL POLICY OVERVIEW

Financial policies provide a guiding framework for the finances of the water utility. They represent a balance between the competing goals of fiscal conservatism through higher rates today and minimizing rates today by spreading costs over time to future ratepayers. The direct effect of the policies is to determine the level at which water rates shall be set, given estimated costs and sales, and to define the general manner in which the capital improvement program is to be financed.

The indirect effects of the policies are to:

- Shape the financial profile the utility presents to the financial community;
- Establish the utility's exposure to financial risk; and,
- Allocate the utility's costs between current and future ratepayers.

In any future year, the optimum revenue requirement is the lowest amount of money necessary to simultaneously satisfy all financial policies in that year. At this level of revenues, some financial policies may be exceeded, but none will be missed – the financial target that is exactly met is known as the binding constraint.

In 2005 City Council passed Resolution 30742, which adopted new water system financial policies that reflect changes and additions to the financial policies adopted in 1992. These updated financial policies are more appropriate for the current financial environment and capital financing requirements. This rate proposal is based on those policies which are as follows:

1. **Maintenance of Capital Assets.** For the benefit of both current and future ratepayers, the municipal water system will seek to maintain its assets in sound working condition. Future revenue requirement analyses will include provision for maintenance and rehabilitation of facilities at a level intended to minimize total cost while continuing to provide reliable, high quality service.

2. **Debt Service Coverage.** Debt service coverage on first-lien debt should be at least 1.7 times debt service cost in each year on a planning basis.

3. **Net Income.** Net income should generally be positive.

4. **Cash Funding of the Capital Improvement Program.** Current revenues should be used to finance no less than 15% of the municipal water system's adopted Capital Improvement Program ("CIP") in any year, and not less than 20% of the CIP over the period of each rate proposal. Cash in excess of working capital requirements may be used to help fund the CIP.

5. **Eligibility for debt financing.** Unless otherwise authorized by Council, the following criteria must be met before project expenditures are eligible for debt financing:

    i) Project is included in the CIP,
    ii) Total project cost exceeds $50,000,
    iii) Project has expected useful life or more than two (2) years (more than 5 years for information technology projects),
    iv) Resulting asset will be owned or controlled by Seattle Public Utilities (SPU), is part of the regional utility infrastructure, or represents a long-term investment for water conservation; and

v) Consistent with generally accepted accounting practices, project costs include those indirect costs, such as administrative overhead and program management, than can be reasonably attributed to the individual CIP project.

6. **Revenue Stabilization Subfund.** As stated in Ordinance 121761, a target balance of $9 million will be maintained in the Revenue Stabilization Subfund, except when withdrawals below this level are needed to offset shortfalls in metered water sales revenues, or to meet financial policy requirements. Withdrawals of funds in excess of the minimum balance will be used to meet operating expenses, to pay Capital Improvement Program expenditures, or to meet financial policy requirements. Withdrawals from the Subfund must be authorized by ordinance, except that Bonneville Power Administration Account funds may be withdrawn based on BPA spending.

   SPU may also make discretionary deposits to the Revenue Stabilization Subfund, provided that these discretionary deposits are in excess of the amounts required to meet the financial policy requirements. Should the balance in Subfund fall below the target balance, within one year SPU shall submit a water rate proposal that rebuilds the balance in the Subfund.

7. **Cash Target.** The target for the year-end operating fund cash balance is one-twelfth of the current year's operating expenditures.

8. **Variable Rate Debt.** Variable rate debt should not exceed 15% of total outstanding debt. Annual principal payments shall be made on variable rate debt in a manner consistent with fixed rate debt.

3. RETAIL WATER REVENUE REQUIREMENT

The **water system revenue requirement** is the minimum amount of operating revenue required to fund the water system operating budget and meet financial policy targets for net income, cash balances, cash financing of the CIP, revenue stabilization fund balances, and debt service coverage. The component requiring the greatest amount of revenue generation (budgetary expenses or one of the financial policy requirements) is termed the "binding constraint". The **retail water revenue requirement** is equal to the water system revenue requirement, less funding from sources other than retail rates including wholesale revenues, draw downs of cash balances, and other operating/non operating revenues.

Rate increases are required to fund increases in the revenue requirement from one rate setting period to the next. Where demand is constant, the system-wide average rate increase will equal the increase in the revenue requirement. Increasing demand (i.e. customers buying more units of water) will reduce the required rate increase and declining demand will increase the rate increase relative to the change in the revenue requirement. In addition, changes in participation in the low income rate assistance program affect the rate increase. Increased participation in the program reduces revenues as more households are paying a discounted rate. The reduction in revenue must be made up through an increase in standard rates.

Table 3-1 summarizes the components of change in the retail water revenue requirement during the proposed rate period. The current study proposes changes to the 2008 adopted rate. This rate was set in 2006 based on planned expenditures, demand, and other funding sources during the rate setting period (2006-2008). Therefore, the change in the 2009 revenue requirement in Table 3-1 and throughout this section is relative to the 2008 plan assumed in the 2006-2008 rate study, not 2008 actuals. Likewise, the 2010 and 2011 changes are relative to planned spending/income in the prior year.

Table 3-1
Components of the Change in the Retail Water Revenue Requirement

($1,000's)	2008 *	2009	$ Change in Rev Req	% Change in Total Rev Req	2010	$ Change in Rev Req	% Change in Total Rev Req	2011	$ Change in Rev Req	% Change in Total Rev Req
Expense										
Operations and Maintenance Expense (O&M)										
Base O&M	65,618	80,602	14,983	13.5%	83,437	2,836	2.1%	88,418	4,981	3.5%
New O&M	-	2,593	2,593	2.3%	3,416	823	0.6%	3,534	119	0.1%
FAS71	-	5,086	5,086	4.6%	6,443	1,357	1.0%	6,668	225	0.2%
Taxes	24,291	30,412	6,121	5.5%	32,397	1,986	1.5%	34,982	2,585	1.8%
Total	89,909	118,692	28,783	26.0%	125,693	7,001	5.2%	133,602	7,909	5.5%
Capital Financing										
Cash	15,639	24,475	8,836	8.0%	21,634	(2,841)	-2.1%	13,792	(7,841)	-5.5%
Debt Service	63,174	71,018	7,843	7.1%	72,028	1,011	0.8%	81,963	9,934	6.9%
Total	78,813	95,492	16,679	15.1%	93,662	(1,830)	-1.4%	95,755	2,093	1.5%
Total Revenue Requirement	**168,722**	**214,184**	**45,462**	**41.0%**	**219,355**	**5,170**	**3.9%**	**229,358**	**10,003**	**7.0%**
Other Funding Sources										
Wholesale Revenues	44,161	49,326	(5,165)	-4.7%	50,459	(1,133)	-0.8%	49,723	736	0.5%
Non-rate revenues	12,728	39,479	(26,751)	-24.1%	18,067	21,413	16.0%	18,719	(652)	-0.5%
RSF withdrawal	1,150	-	1,150	1.0%	-	-	0.0%	5,034	(5,034)	-3.8%
Drawdowns of Cash Balances	(133)	(8,826)	8,693	7.8%	7,225	(16,051)	-12.0%	(444)	7,669	5.7%
Total	57,906	79,979	(22,074)	-19.9%	75,751	4,229	3.2%	73,032	2,719	2.0%
Net Retail Rates Rev Requirement	**110,817**	**134,205**	**23,388**	**21.1%**	**143,604**	**9,399**	**7.0%**	**156,326**	**12,722**	**9.0%**
Rate Adjustments										
Change in Demand (CCF/1000)	27,020	28,130	(1,110)	**-3.6%**	27,970	160	**0.4%**	27,800	170	**0.4%**
Increase in Low Income Rate Assistance Program				**0.5%**			**0.7%**			**0.5%**
Effective Increase in Retail Rates				**18.0%**			**8.1%**			**9.9%**

* 2008 assumptions used in 2006-2008 Rate Study

The top section of Table III-1 ("***Expense***") presents the components of expense that make up the water system revenue requirement. The middle section of the table ("***Other Funding Sources***") presents other sources of funding which reduce the amount of expense that must be recovered through retail rates. The bottom part of the table presents two items ("***Demand***" and "***Low Income Rate Assistance Program***") that do not affect the revenue requirement but do affect rates. So, for example, the total revenue requirement increases by 41.0 percent from 2008 to 2009. However, additional wholesale and other non-rates revenues and the draw down of existing cash balances are used to fund 19.9 percent of this increase, reducing the increase in the retail revenue requirement to 21.1 percent. The actual average rate increase (18.0 percent) is lower than the revenue requirement increase due to a projected increase in demand which more than offsets a projected increase in the low income rate assistance participation.

Below is a more detailed description of the components of change in the revenue requirement.

3.1. Operations and Maintenance Expense (O&M)

The water system O&M revenue requirement includes direct water operating expense, as well as a portion of administrative expense that water shares with the other SPU funds (i.e. finance, customer service, etc.). For rates study purposes, O&M includes taxes but does not include debt service, which is discussed under capital financing.

Under this proposal, O&M increases over the 2008 amount *as projected in the 2006-2008 rate study* by $29 million in 2009, $7 million in 2010, and $8 million in 2011, adding 26.0 percent, 5.2 percent, and 5.5 percent to the revenue requirement in those respective years. Table 3-2 presents increases in proposed O&M spending by source.

O&M is broken into two categories: Base O&M, which includes existing activities as well as FAS-71 expenses and taxes, and New O&M. Taxes are driven by the increase in taxable revenue due to the higher revenue requirement.

Table 3-2
Change in Operating and Maintenance Expenditures

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Base O&M							
Existing base (increases due to inflation, increased energy costs, salary adjustments, City central cost increases, and other fixed cost increases)	65,618	80,602	14,983	83,437	2,836	88,418	4,981
FAS-71 expenses	-	5,086	5,086	6,443	1,357	6,668	225
Taxes	24,291	30,412	6,121	32,397	1,986	34,982	2,585
Total Base O&M	**89,909**	**116,099**	**26,190**	**122,277**	**6,178**	**130,068**	**7,791**
New O&M							
BIP SPU-108 Shared Fund - Construction Management FTEs	-	84	84	87	3	90	3
BIP SPU-109 Shared Fund - Customer Service MOAs	-	226	226	197	(28)	204	7
BIP SPU-111 Shared Fund - Citywide GIS Catch-Up Funding	-	80	80	83	3	86	3
BIP SPU-112 Shared Fund - Citywide GIS Restoration	-	142	142	148	6	153	5
BIP SPU-118 Deferred Maintenance	-	937	937	1,233	296	1,276	43
BIP SPU-119 Cedar Filtration & Lake Youngs Water Quality Studies	-	-	-	130	130	135	5
BIP SPU-120 Tolt Watershed Master Plan Implementation	-	-	-	296	296	306	10
BIP SPU-137 Low Income Rate Assistance	-	21	21	22	1	22	1
BIP SPU-138 Field Operations - Street Repair Costs & Overtime	-	1,043	1,043	1,080	37	1,117	37
BIP SPU-144 Volunteer Reservoir Patrols	-	60	60	140	80	145	5
Total New O&M	**-**	**2,593**	**2,593**	**3,416**	**823**	**3,534**	**119**
Total O&M	**89,909**	**118,692**	**28,783**	**125,693**	**7,001**	**133,602**	**7,909**

* 2009 amounts are relative to 2008 assumptions used in 2006-2008 Rate Study

3.1.1. Base O&M Expense.

The proposed base O&M for 2009 equals the spending required to support operations and maintenance functions budgeted under the 2008 revised budget. Under this proposal, base O&M increases over the amount projected in the 2006-2008 rate study by $26 million in 2009, of which $5 million is due to FAS-71 expenses and $6 million is due to increased taxes due to higher revenues.

The remaining $15 million is due to the cumulative effect of three years of cost increases that have been higher than the 2.5 percent assumed in the 2006-2008 rate study. Actual COLA increases have been higher than 2.5 percent, and construction and other cost increases have been even higher. In addition, there have been wage adjustments and City central cost increases. These increases have been funded through sources other than rates revenue; however these sources are not expected to continue to be available.

The proposal assumes additional increases in the base of $6 million in 2010 and $8 million in 2011, in line with DOF inflation assumptions.

3.1.2. New Operations and Maintenance Expense.

The 2009 proposed retail water rates support $2.6 million in spending on expanded and/or new programs. Details on these BIP can be found in the budget proposal. In summary, they are:

- Shared Fund - Construction Management FTEs (BIP SPU-108)
- Shared Fund - Customer Service MOAs (BIP SPU-109)
- Shared Fund - Citywide GIS Catch-Up Funding (BIP SPU-111)
- Shared Fund - Citywide GIS Restoration (BIP SPU-112)
- Facilities Deferred Maintenance (BIP SPU-118)
- Cedar Filtration & Lake Youngs Water Quality Studies (BIP SPU-119)
- Tolt Watershed Master Plan Implementation (BIP SPU-120)
- Low Income Rate Assistance (BIP SPU-137)
- Field Operations Street Repair Costs (BIP SPU-138)
- Volunteer Reservoir Patrols (BIP SPU-144)

For 2009 and 2010, the amount of the BIPs was taken from the budget proposal. For 2011, 3.5 percent inflation was applied to the 2010 BIP amount.

3.2. Capital Financing Expense

Financing of the capital program will increase the revenue requirement by 15.1 percent in 2009, decrease it by 1.4 percent in 2010, and increase it by 1.5 percent in 2011 as presented back in Table 3-1. The decrease in 2010 will be discussed under section 3.2.1 below.

Major water capital programs to be funded in during this period include:

- Continued reservoir covering
- Morse Lake Pump Plant
- Sockeye Hatchery
- Service renewals and retirements
- 1% Conservation

SPU funds water system capital projects through a combination of cash (from direct service and non-rates revenue) and debt financing (revenue bonds). Per financial policies, this rate study assumes that, 20 percent of the accomplished CIP[1] will be cash-financed, on average, over the three year rate period. The balance will be funded with low interest loan and revenue bond proceeds. Table 3-3 presents CIP spending and financing assumptions during the proposed rate period.

Table 3-3
Capital Spending and Financing Assumptions

($1,000's)	2009	2010	2011	3 year average
CIP Spending Assumptions				
Budgeted CIP	120,081	120,333	92,132	
Accomplished CIP (90%)	108,073	108,300	82,919	
CIP Financing Breakdown				
Cash Financed	24,475	21,634	13,792	
Debt Financing				
Low Interest Loan	16,000	-	-	
Bond Financing	67,598	86,666	69,126	
Cash Financed Percentage	22.6%	20.0%	16.6%	20.0%
Bond Financed Percentage	77.4%	80.0%	83.4%	80.0%

3.2.1. Change in Cash Financing

Water system financial policies call for 20 percent of the CIP to be financed with current cash revenues (as opposed to debt proceeds) over the period for which rates are proposed. The sources of cash that assist in meeting this 20 percent target are operating revenues and contributions in aid of construction[2].

Over the three year rate period, total cash financing of the CIP is projected to average 20 percent, with 23 percent cash financing in 2009 and 20 and 17 percent in 2010 and 2011, respectively. A larger contribution is projected for 2009 due to the availability of projected cash proceeds from the assumed 2009 sales of the Eastside Reservoir and an easement to Puget Sound Energy. The cash associated with these sales will not be required to fund 2009 operating requirements. The larger contribution in 2009 allows for a smaller contribution in 2011, while still meeting the 20 percent average policy target.

As presented in Table 3-4, cash financing of the CIP increases $8.8 million in 2009, adding 8 percent to the revenue requirement. The decline in the percentage cash financed in 2010 reduces the revenue requirement by $2.8 million. In 2011, a further decline in cash financing percentage combined with lower in CIP spending further reduces the amount of cash-financed CIP by $7.8 million.

[1] For the purposes of rate-setting, SPU has assumed a 90 percent completion rate.

[2] Customers often pay for water facilities when they connect to the water system or cause the relocation of water facilities. For example, a developer pays for installation of a water meter and service line when building a new house.

Table 3-4
Change in Cash Financing

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Cash Financed	15,639	24,475	8,836	21,634	(2,841)	13,792	(7,841)

* 2008 assumptions used in 2006-2008 Rate Study

3.2.2. Change in Debt Service.

Table 3-4 presents projected Water Fund debt service, by source, during the proposed rate period.

Table 3-5
Change in Water Fund Debt Service

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Debt Service Details							
Debt service for existing bond issues	63,174	63,369	195	63,375	6	63,375	-
2008 bond debt service**		7,649	7,649	7,649	-	7,649	-
2009 low interest loan debt service		-	-	1,004	1,004	1,103	99
2010 bond debt service		-	-	-	-	9,835	9,835
Total debt service	63,174	71,018	7,843	72,028	1,011	81,963	9,934

* 2008 assumptions used in 2006-2008 Rate Study

** 2008 bond payments begin in 2009

SPU expects to issue approximately $117 million in new WF revenue bonds in late 2008. The bond proceeds are expected to fund projects through June 2010, as well as provide $5 million to fund a bond reserve account. This reserve account is required in the case that bond insurance cannot be obtained, which seems likely in the current credit market. Assuming this issue, WF debt service is expected to increase by $7.8 million in 2009.

In 2009, SPU expects to receive $16 million in State Revolving Fund low interest loans. The associated debt service is likely to begin that same year and is estimated at $1.0 million.

Another bond issue is expected in 2010 for $121 million to fund projects through June 2012. This issue is expected to increase debt service by $9.9 million in 2011.

3.3. Non-Rates Revenues (Other Funding Sources)

A significant portion of the total water system revenue requirement is funded through wholesale revenues, capital contributions, asset sales, and other operating and non-operating revenues. Non-rates revenues are projected to increase over 2008 projections by $31.9 million in 2009.

3.3.1. Wholesale Revenues

Revenues from wholesale customers are expected to increase from the $44 million assumed for 2008 to $49 million in 2011, as presented in Table 3-5.

Table 3-6
Change in Wholesale Revenues

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
1982 Contract Revenue	4,081	3,855	226	4,178	(322)	4,516	(339)
2001 Contract Regional Revenue	19,527	20,396	(869)	20,481	(85)	20,682	(201)
2001 Contract Subregional Revenue	470	316	154	269	47	298	(29)
Cascade Block Revenue	15,457	19,757	(4,300)	20,347	(590)	19,218	1,129
Northshore Block Revenue	4,626	5,001	(376)	5,184	(183)	5,008	176
Total	44,161	49,326	(5,165)	50,459	(1,133)	49,723	736

* 2008 assumptions used in 2006-2008 Rate Study

Rates for wholesale customers are set in accordance with wholesale contracts. These contracts define cost of service methodologies that determine how much the water system charges for wholesale service. The wholesale rate studies apply these methodologies based on expenditure projections (budget). Wholesale rates may be affected by actions that raise or lower the water system O&M or CIP budget. Outside of budget changes, there is very little flexibility to alter wholesale rates and revenues.

This rate study assumes an additional $3 million in purchases from CWA in 2009 and beyond, based on current negotiations with CWA.

For more information on wholesale rates see the wholesale rate studies in Appendixes B and C.

3.3.2. Non-rate Revenues

As presented in Table 3-7, other non-rate revenue is projected to increase from the $12 million assumed for 2008 to $39 million in 2009, then decrease to $18 million in both 2010 and 2011.

Table 3-7
Change in Non-rate Revenues

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Unmetered Revenues							
Capital Contributions & Tap Fees	8,127	14,694	(6,567)	14,540	154	13,792	747
Operating Fund Interest Income	17	110	(93)	260	(151)	(187)	447
Rentals & Others	2,646	2,876	(229)	2,597	279	2,659	(62)
Charges for shutoffs & others	1,598	1,510	88	2,548	(1,038)	2,587	(39)
Billing leads & lags	56	188	(131)	(1,983)	2,171	(239)	(1,744)
Asset sales	-	20,000	(20,000)	-	20,000	-	-
Unmetered revenue	283	102	181	104	(3)	107	(3)
Total Unmetered Revenues	12,728	39,479	(26,751)	18,067	21,413	18,719	(652)

* 2008 assumptions used in 2006-2008 Rate Study

The largest category of other non-rate revenues is asset sales, which are the Eastside Reservoir and PSE Easement sales mentioned previously. The second largest is capital contributions and tap fees. Most of the items that make up this category are assumed to remain at their actual 2008 levels as inflation is offset by an anticipated downturn in construction. The decreases in 2010 and 2011 are due to the depletion of Bonneville Power Administration[3] funds.

Operating Fund interest income is calculated on the projected monthly balance for each year. The large cash balances from assumed sales of the Eastside Reservoir and PSE easement are projected to create positive interest for 2009 and 2010, while 2011 is negative due to the normal shape of the WF's cash balances, which are negative over part of the year.

Billing leads and lags are year-end cash effects that adjust for differences in when an expense (or revenue) is recorded in SPU financial systems[4] versus when the associated cash is paid (or received). These lags/leads result in an impact on rates when their sum dollar amount changes from year to year. The leads/lags presented in Table 3-7 above are primarily associated with changes in the timing of CIP billed to SPU from year to year.

Rentals and Others drops in 2010 because the decreasing CCSS reimbursement from City Light. All other categories in Table 3-7 are assumed to increase at 1.25 percent per year over their 2007 levels.

3.4. Revenue Stabilization Subfund Withdrawals (Other Funding Sources)

In 2002, the City Council passed Ordinance 120875 identifying a target balance of $9.0 million for the Revenue Stabilization Subfund (RSF). The balance as of the last rate study was $11.4 million and Council authorized SPU to make withdrawals during 2006-2008 to bring the balance down to $9.0 million. Due to higher than projected non-rates revenue, no withdrawals were actually made between 2006 and 2008, resulting in a current balance of $12.6 million (includes accrued interest).

From a rates perspective, withdrawals from the RSF are part of the other funding sources pool. Increases in withdrawal size add to this pool and therefore reduce the retail rate revenue requirement. Decreases in withdrawal size reduce the size of this alternative funding pool and increase the direct service funding requirement.

This rate study again proposes that the balance above $9.0 million be withdrawn to offset rate increases, with a withdrawal of $5.0 million in 2011. Table 3-8 presents projected rate stabilization balances.

[3] Bonneville Power Administration purchased an easement through the Cedar River Watershed in 2003. The proceeds are to be used to reimburse specific activities in the CRW, and are projected to be depleted in 2010.

[4] In general, revenues are recorded when billed and expenses when invoiced.

Table 3-8
Projected Water Rate Stabilization Fund Balances

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Beginning RSF Cash Balance		12,937		13,376		13,699	
Interest		439		323		334	
Deposit (Withdrawal)	(1,150)	0		0		(5,034)	
Ending RSF Cash Balance		13,376		13,699		9,000	
Cash used to support revenue requirement	**(1,150)**	**0**	**1,150**	**0**	**0**	**(5,034)**	**(5,034)**

* 2008 assumptions used in 2006-2008 Rate Study

Although no withdrawal was actually made in 2008, the 2008 adopted rate assumed a $1.15 M withdrawal in that year. So the lack of a 2009 withdrawal represents a $1.1 million decrease in the withdrawal size and thus a $1.1 million increase to the direct service revenue requirement.

The Citizen's Advisory Committee has recommended raising the RSF minimum balance to $12 million. However, they were unaware of the overall level of the rate increase when that recommendation was made. From a risk perspective, while the probability of dipping into the RSF in any one year is 1 in 8, the risk of exhausting it and moving to a surcharge, if one is needed due to a major event, is closer to 1 in 50. This proposal recommends maintaining the minimum at $9 million and using the amount above that to mitigate rate increases.

3.5. Use of Cash Balances (Other Funding Sources)

Revenue generated by rates is used to fund current operating expenses, maintain a cash balance as a safeguard against unexpected expense, and to fund a portion of the current capital program. A rate may be set to increase, hold constant, or decrease the WF's Operating Fund cash balances. Decreasing, or drawing down, a cash balance in a given year lowers the rates in that year as that cash does not need to be received through rate revenues. However, just like other funding sources, what affects rates is not the level in any one year, but the year to year change in funding from that source.

In most years, cash balances are not a large rate driver for the Water Fund as the year-end cash balance target ($1/12^{th}$ O&M budget) increases by less than $0.5 million per year. This rate study is different in that it proposes to hold a portion of the $20 million cash anticipated to be received in 2009 (for the sale of Eastside Reservoir and an easement to PSE) in the Operating Fund to be used in 2010.

The change in cash requirement in the table below illustrates the amount that needs to be made up by rates.

Table 3-9
Change in Water Operating Fund Cash Balances

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Beginning Cash Balance	5,335	6,174		15,000		7,775	
Ending Cash Balance	5,468	15,000		7,775		7,950	
Cash used to support revenue requiremment	133	8,826	8,693	(7,225)	(16,051)	175	7,401

* 2008 assumptions used in 2006-2008 Rate Study

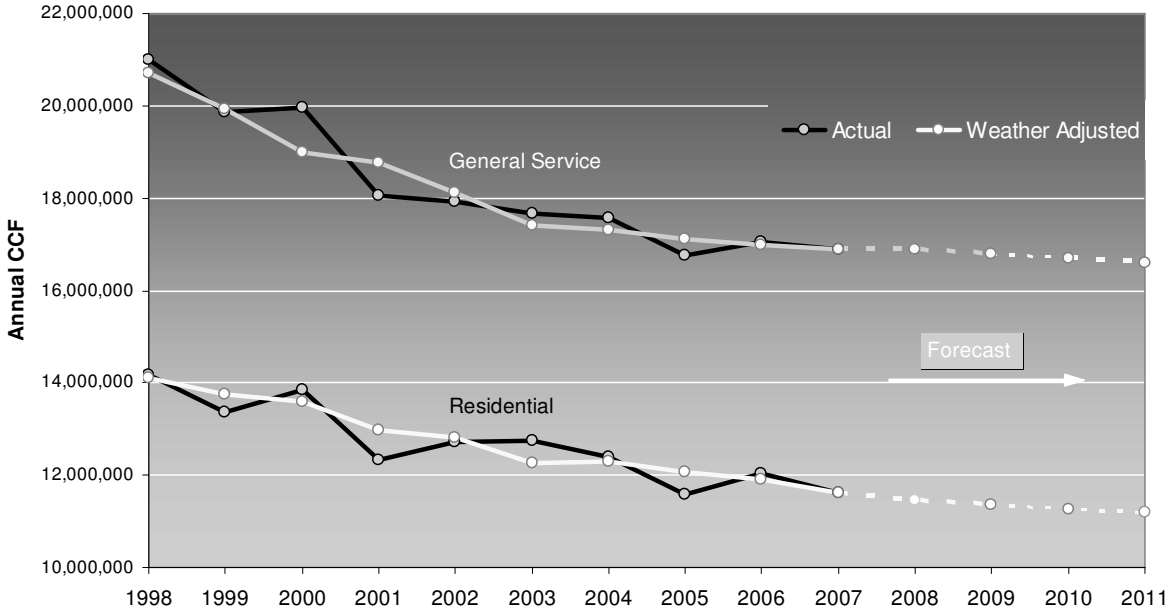
3.6. Effect of Demand (Rate Adjustment)

The volume of water sold to retail customers is expected to decline by about 0.8 percent in 2009 (from the current 2008 forecast), and 0.6 percent in 2010 and 2011. Sales to residential customers are generally declining faster (about 0.7-1.0 percent per year) than sales to commercial customers which are declining about 0.5-0.7 percent per year. In order to maintain required revenues, water rates have to rise to offset this reduction in demand.

These declines continue a downward trend that started in the early 1990's as can be seen in the graph (for 1998-2011) below:

Figure 3-1

Historical and Forecast Retail Consumption by Class: Actual and Weather Adjusted



"Weather adjusted" demand is what the demand for that year would have been with "normal" summer weather.

This downward trend increased in recent years as a result of the 1% conservation program, slowing population growth and declining employment. However, employment levels began increasing in the region in 2004 and are forecast to continue to increase in the coming years.

The short-term forecasting model is based on employment and an underlying trend in consumption associated with increased efficiency in water use. In the early- and mid-1990's, growth in employment offset some of the decrease in general service demand caused by efficiency gains in water use. From 2001 to 2003 the local economic climate was such that employment actually fell, magnifying the decline in demand. Since 2004, employment has been increasing but demand is still falling although at a slower pace.

The results of the short term water demand model for residential and general service customers are shown in the graph above and in Table 3-10.

Table 3-10
Short Term Water Consumption Forecasts (Annual CCF)

Year	Residential		Commercial		Total (Res. + Comm.)	
	Consumption (CCF)	**Percentage Change**	**Consumption (CCF)**	**Percentage Change**	**Consumption (CCF)**	**Percentage Change**
Actual/Projected						
2006	12,036,502		17,064,431		29,100,933	
2007	11,577,707		16,893,995		28,471,702	
Short-Term Demand Model Results [5]						
2008	11,460,000		16,900,000		28,360,000	
2009	11,350,000	-1.0%	16,780,000	-0.7%	28,130,000	-0.8%
2010	11,270,000	-0.7%	16,700,000	-0.5%	27,970,000	-0.6%
2011	11,190,000	-0.7%	16,610,000	-0.5%	27,800,000	-0.6%

The demand model takes into account expected conservation savings and the latest forecast of employment growth. Because a significant quantity of water is used for irrigation purposes during the summer, water sales depend on summer weather. The model used to forecast demand for this rate study assumes the weather of a "normal" year in which summer weather is not particularly wet, dry, hot or cool. Actual demand will vary from forecast because summer weather varies.

As mentioned above, these changes in demand create a difference between the increase in revenue requirement and the increase in the rate. The effect for 2009-2011 is contained in Table 3-9. The effect in 2009 is to lower the rate increase needed because consumption did not fall as far as was projected in the 2006-2008 rate study.

Table 3-11
Effect of Demand on Rate Increase

	2008 *	**2009**	**Change**	**2010**	**Change**	**2011**	**Change**
Retail Demand (Annual CCF/1000)	27,020	28,130	(1,110)	27,970	160	27,800	170
Effect on Rate Increase			-3.6%		0.4%		0.4%

* 2008 assumptions used in 2006-2008 Rate Study

3.7. Effect of Changes in the Low Income Assistance Program (Rate Adjustment)

Similar to demand, changes in customer participation in the low income rate assistance program do not affect the Water Fund revenue requirement but do affect the rate increase. Increased participation in the program reduces revenues as more households are paying a discounted rate. The reduction in revenue must be made up through an increase in standard rates.

The Executive has proposed changes in the low income rate assistance program, including automatic enrollment with income self-certification for enrollees who have qualified for other similarly situated assistance programs, increasing one of the income thresholds, and increased outreach. These are expected

[5] This retail forecast was produced subsequent to that used in the wholesale rate studies and therefore differs slightly.

to increase the participation rate and therefore the total amount of discounts. The effect on rates is shown in Table 3-12.

Table 3-12
Effect of Changes to Rate Assistance Program on Rate Increase

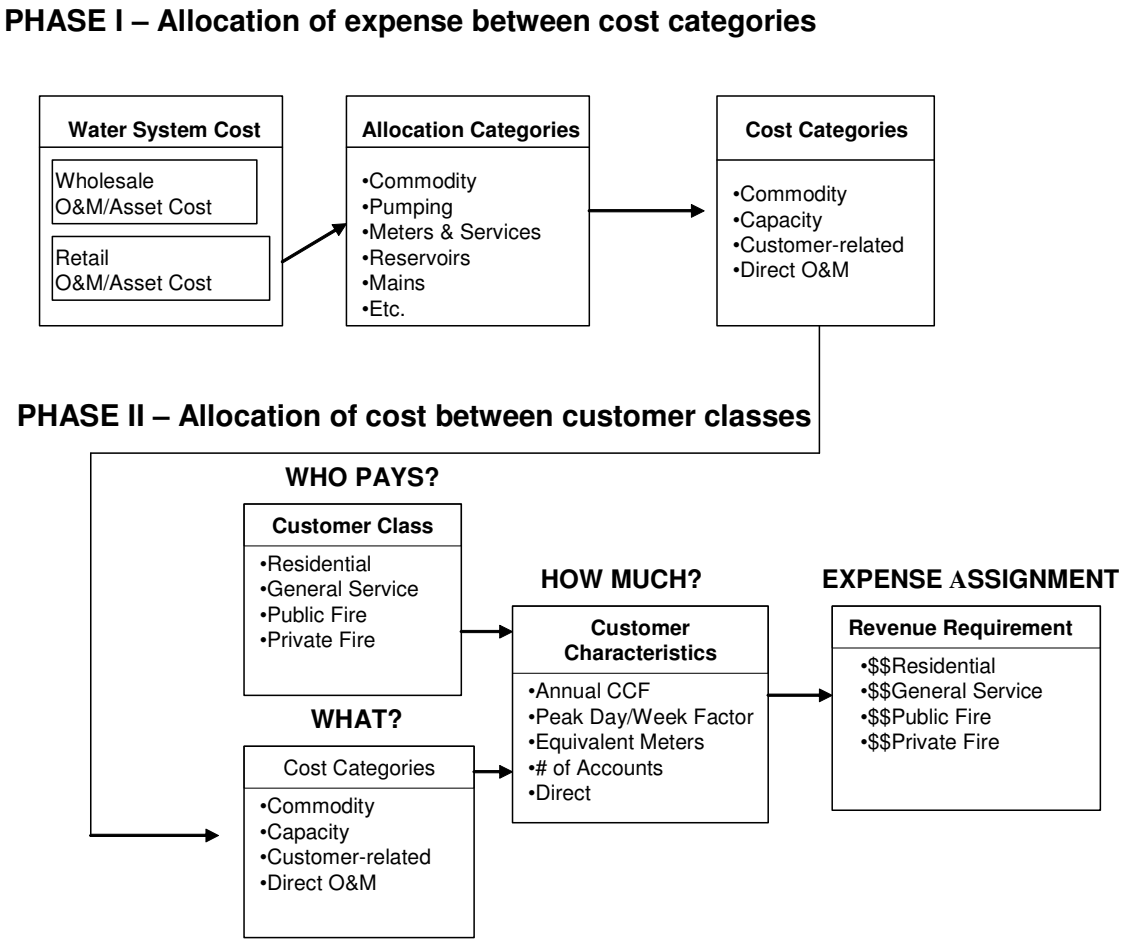
($1,000's)	2008 *	2009	Change	2010	Change	2011	Change
Total Discount	1,185	1,700	(515)	2,572	(872)	3,320	(748)
Effect on Rate Increase			0.5%		0.7%		0.5%

* 2008 assumptions used in 2006-2008 Rate Study

4. COST ALLOCATION

Once the **retail revenue requirement** is set, it must be assigned to different customer classes. A customer class is a group of customers that places a unique cost on the utility or is administratively easier to serve as a group. **Figure 4-1** presents the multiple steps (divided into two phases) required to allocate water expense to individual customer classes. In the first phase, the retail component of water system expense is allocated between cost categories which are groupings of cost items that are driven by similar factors. In the second phase, the cost assigned to each cost category is allocated between customer classes based on defined customer characteristics.

Figure 4-1
Cost Allocation Process



The cost allocation process presented above recognizes differences in the costs of providing service to different types of customers. For example a customer class with a higher than average peak rate of use requires larger capacity pumps, pipes, and other system facilities than a customer class that uses the same total volume of water but at a uniform rate. Accordingly, the former class will account for a greater than average share of total system peak period demand (customer characteristics) and therefore be assigned a greater than average share of capacity related cost.

The general framework for **Phase 1** of the cost allocation process is presented in this chapter with complete details provided in Appendix A. This chapter, which focuses on **Phase II** of the cost allocation process, is organized as follows:

- Overview - cost categories
- Framework for allocation of retail water expense between cost categories (Phase I)
- Identification of customer classes and quantification of cost allocation characteristics
- Calculation of total cost of service, or revenue requirement, for each customer class

The current rate study does not propose any changes to the cost allocation methodology used in the prior rates process.

4.1. Overview – Cost Categories

Retail water system costs are grouped into four main cost categories which can be allocated between customer classes based on customer characteristics: commodity, capacity, customer-related, and directly assigned. The costs assigned to the first three categories are shared among different customer classes based on characteristics such as total annual water volume and number of accounts. Costs included in the directly assigned category are assigned in their entirety to the applicable customer classes.

Commodity Costs. Commodity costs vary proportionately with the amount of water provided under average consumption conditions. These costs include items such as the Cedar and Tolt treatment plants, and chlorination at in-town reservoirs. They also include the cost of activities and assets that are shared with wholesale customers since the allocation between wholesale and retail is based on commodity.

Capacity Costs. Capacity costs are incurred to meet the maximum rate of use placed on the system by customers. For example, pumps and reservoirs are sized for maximum demands.

Customer-Related Costs. Customer-related costs encompass an umbrella of expenses associated with serving customers independent of the amount of water they use. These include the cost of meter maintenance and repair, meter reading, billing, customer accounting, and the call center.

Direct Assigned Costs. These are costs that are directly allocable to a single customer class. Examples of direct allocations are:

Residential - Residential customer service teams
General Service - General Service customer service teams
Public Fire - Hydrant repair and flow testing

4.2. Framework for Allocation of Retail Expense to Cost Categories (Phase I)

The cost allocation framework for retail water rates uses the distribution of embedded or average costs from a prior period ("test year") to allocate future revenue requirements between different cost categories. Therefore, the 2009-2011 retail water system revenue requirements are assigned to customer classes based on the actual distribution of expense between those categories in 2007 (test year). The test year expense is defined according to a "utility basis" which is the sum of the following elements:

- Annual operations and maintenance (O&M) costs;
- Depreciation expenses on assets paid for by rates; and,
- A return on assets calculated on infrastructure in service

Phase I of the cost allocation involves the distribution of prior year expense between cost categories, as further described in Appendix A, Section A.2. Additional information on the "utility-basis" costing framework, can be found in Appendix A, Section A.1 to this study.

Table 4-1 presents the breakdown of 2007 retail water system expense by cost component (see **Appendix A** for the detail behind this data). As noted below, almost three-quarters of retail water system expense is commodity based and driven by average annual water usage (flows).

Table 4-1
Water Cost Component Summary

Component Cost Category	2007 Revenue	% of Total
Commodity		
Annual Flows	86,705,901	73.1%
Capacity		
Peak Day	334,337	0.3%
Peak Week	1,990,642	1.7%
Customer-related		
Account	8,181,392	6.9%
Meter Equiv	14,448,237	12.2%
Direct/Engineering basis		
Residential	820,938	0.7%
General Svc	635,725	0.5%
Public Fire	5,485,748	4.6%
Total	**118,602,921**	**100%**

4.3. Retail Customer Classes and Characteristics

Retail water customers are divided into four customer classes.

- **Residential.** Customers living in single family or duplex residences.

- **General Service.** Commercial, governmental, and industrial customers as well as multi-family residential structures.

- **Private Fire.** The separately metered connections for fire-protection sprinkler systems installed on the customer's property. These customers pay a separate rate for these services in addition to their General Service or Residential rates for their domestic services.

- **Public Fire.** The governmental agencies responsible for providing public fire protection (hydrants).

Costs are assigned to these customer classes based on how the characteristics of each class drive water system costs. **Table 4-2** summarizes the allocator (customer characteristics) used to assign cost to each component cost category.

Table 4-2
Allocators by Cost Category

Allocation Category	Customer Characteristics	Comments
Commodity Costs	Annual CCF	Actual 2007 total water consumption in hundreds of cubic feet (CCF).
Capacity Costs	Peak Day Factor Peak Week Factor	These factors are estimates derived from demand metering data in areas that are either primarily residential or primarily commercial.
Customer-related Costs	Equivalent Meters Number of Accounts	Equivalent Meters is a cost weighted count of different sized meters by class (See Appendix A1.5 for calculation details). Number of Accounts is 194,327 as of 12/31/2007
Direct Assignment	Class specific expense assigned directly to applicable class	These are costs for activities or assets that are dedicated to one customer class only

Table 4-3 quantifies the key characteristics by class that are used to allocate commodity, capacity and customer-related costs in the current rate study. The public fire class pays a share of directly assigned costs but is not allocated any expense from the other three cost categories and is therefore, not included in the table below.

Table 4-3
Key Customer Characteristics

	Peak Day		Peak Week		Annual Flow		Equivalent Meters		Accounts	
Customer Class	Factor	Percent	Factor	Percent	CCF	Percent	Count	Percent	Count	Percent
Residential	2.67	54%	2.25	51%	11,577,707	41%	160,262	70%	159,280	82%
General Service	1.27	26%	1.20	27%	16,893,995	59%	49,602	22%	29,093	15%
Private Fire	1.00	20%	1.00	22%	18,511	0%	18,052	8%	5,954	3%
Total	**4.94**	**100%**	**4.45**	**100%**	**28,490,213**	**100%**	**227,917**	**100%**	**194,327**	**100%**

As noted above, the residential class accounts for the majority of peak usage, number of meters, and number of accounts while the general service class accounts for the majority of average annual water usage. Private fire accounts for about one-fifth of peak usage.

4.4. Cost of Service and Revenue Requirement by Customer Class

The customer characteristic percentages in Table 4-3 are applied to the appropriate 2007 allocation categories in Table 4-1 to determine each customer class' actual 2007 cost of service. Table 4-4 summarizes the results of this allocation process.

Table 4-4
Retail Water Cost of Service Based on 2007 Actual Financial Data

Customer Class	Commodity	Capacity	Customer Related	Direct	Total Cost of Service	Percentage of Total Cost of Service
Residential	35,235,100	1,316,291	16,865,322	820,938	54,237,652	45.7%
General Service	51,414,465	1,007,774	4,369,248	635,725	57,427,213	48.4%
Private Fire	56,336	913	1,395,059	-	1,452,308	1.2%
Public Fire	-	-	-	5,485,748	5,485,748	4.6%
Total	86,705,901	2,324,979	22,629,629	6,942,412	118,602,921	100.0%

The rate revenue requirements for each rate class are calculated by applying each class' percent of total 2007 cost to the 2009-2011 retail rates revenue requirements, with results as presented in Table 4-5.

Table 4-5
2009-2011 Retail Revenue Requirement
By Customer Class

Customer Class	2007 Total Cost of Service	Cost of Service Percentage	2009 Cost of Service	2010 Cost of Service	2011 Cost of Service
Residential	54,237,652	45.7%	61,372,512	65,670,739	71,488,184
General Service	57,427,213	48.4%	64,981,654	69,532,647	75,692,200
Private Fire	1,452,308	1.2%	1,643,356	1,758,448	1,914,221
Public Fire	5,485,748	4.6%	6,207,388	6,642,122	7,230,515
Total	118,602,921	100.0%	134,204,909	143,603,957	156,325,120

Although the 2009-2011 rate proposal employs the same cost allocation framework that was used for the 2006-2008 rate proposal, the shares of the retail revenue requirement borne by the various direct service customer classes have shifted since the last rate study, with an increase in general service's overall share of the revenue requirement, as presented in Table 4-6.

Table 4-6
Revenue Shares by Customer Class

Customer Class	2006-2008 Rate Study	2009-2011 Rate Study
Residential	46.9%	45.7%
General Service	46.6%	48.4%
Private Fire Service	1.3%	1.2%
Public Fire	5.2%	4.6%

The reason for this shift was an increase in spending, since 2004, on certain assets and O&M expense that support the overall Water Fund. While this expense is spread across cost categories using composite allocators (see Appendix A for more information), the majority of the expense is allocated to the commodity cost category which is allocated between customer classed based on average annual flows. As the general service class accounts for about 59% of these flows, there was a slight increase in its overall cost share.

Specific asset costs included above are security projects, SCADA system, operations control center remodel, heavy equipment purchases, IT projects, and the joint training facility. The primary O&M driver was a $7.4 M increase in City Central Costs. A portion of this increase is inflation, and a portion is due to the increased centralization of costs such as rent, Summit, DoIT and HRIS.

5. RATE DESIGN

Rate design is the last element of the rate study. Chapter 3 presents how much retail water revenue is required to fund proposed 2009-2011 O&M and capital programs while meeting adopted financial targets. Chapter 4 discusses the allocation of revenue requirement between customer classes. This chapter identifies the structure of individual rates and the proposed 2009-2011 rates which will satisfy the retail revenue requirement while meeting established rate design policy objectives.

The current rate study continues rate design practices implemented in the previous rate study. Proposed rates maintain meter and commodity rate parity between residential and general service customers that was achieved in 2008. Similar increases are proposed for commodity rates and to the ¾ inch base meter charge. Proposed changes to meter charges utilize an updated meter cost analysis in determining the differential (or progression) between rates for different size meters. No changes are proposed to certain rates (larger meter charges and private fire rate) which are significantly higher than their cost of service at current levels. Holding these rates constant rather than decreasing them somewhat mitigates the impact of the revenue requirement increase on residential and general service commodity rate, and provides rate stability.

The proposed rates increase the typical monthly residential bill by $4.44 in 2009, $2.36 in 2010, and $3.11 in 2011. The net increase over the three-year period (at constant consumption) is $9.91. The exact increase in general service bills varies based on consumption and meter size. A typical convenience store would see increases of $12.13, $6.41, and $8.46 per month for 2009, 2010, and 2011, respectively. Likewise, a typical apartment building would see increases of $32.68, $17.54, and $22.98 per month. The proposed increase in public fire larger main rates for is 7.0 percent in 2009, 7.0 percent in 2010 and 8.9 percent in 2011. There is no proposed change to 2008 private fire rates, as noted above.

5.1. Rate Design Overview

A utility rate structure, or rate design, typically considers three elements: classification of customers served, billing frequency, and schedule of charges for each customer class. The schedule of charges or "rates" is designed to recover the utility's costs, given projected customer demand[6]. In addition to cost recovery, a rate structure should support and optimize a blend of various utility objectives and should work as a public information tool in communicating these objectives to customers.

5.1.1. Retail Water Rate Structure

Seattle's retail water customers are grouped into four broad customer classifications: Residential, General Service, Private Fire (i.e. building sprinklers), and Public Fire (municipal hydrants). SPU has developed rate structures for each of these customer classes which reflect the classes' cost of service structure, demand patterns, and policy objectives. A given rate class may be further divided into sub-classes. While the rate structure for each sub-class (under the same primary class) will be similar or identical, the actual rate assigned to each sub-class will vary based on actual differences in cost of service or historical contractual requirements. **Table 5-1** provides a summary of Seattle's retail water rate classes, subclasses, and associated rate structures.

[6] Section 3.6 discusses projected customer demand and its influence on rates during the proposed rate period.

Table 5-1
Retail Water Rate Structure Summary

Class	Sub-class	Rate Structure
Residential	• In-City • Out-of-City • Shoreline Franchise • Master-Metered Developments	• Base Service Charge (meter-size based) • Single Off-Peak Commodity Rate • Tiered Peak Commodity Rate • Low Income Rates
General Service	• In-City • Out-of-City • Shoreline Franchise	• Base Service Charge (meter-size based) • Single Off-Peak Commodity Rate • Single Peak Commodity Rate
Private Fire	• In-City • Out-of City • Shoreline Franchise	• Base Service Charge (meter-size based) • Commodity Penalty Rate
Public Fire (hydrants)	N/A	• Charge for 4 inch mains • Charge for larger mains

Section 5.1.2. discusses the objectives that have been considered in the development of the rate structures outlined above. Sections 5.2 through 5.5 provide additional detail on the rate structures by customer class and subclass. Appendix E lists all proposed 2009-2011 rate schedules by class and sub-class.

5.1.2. Rate Objectives

SPU staff, with input from past Rate Advisory Committees, has identified the following policy objectives for the retail water rate design:

- Provide financial soundness;
- Advance economic efficiency;
- Promote customer equity;
- Encourage customer conservation;
- Contribute to transparency and customer understanding; and,
- Reduce impacts on low income customers.

Certain of these objectives imply different directions in rate design than others. An appropriate rate design must strike the best overall balance among conflicting objectives. The first objective of financial soundness is overriding and should be met by all rate designs considered. The final objective of reducing impacts on low income customers is partly met by a citywide program, in which SPU participates, to provide discounts to low income and disabled customers. The remaining objectives are met to varying degrees by the individual rate structures, as further discussed in Sections 5.2 through 5.5.

5.2. Residential Rate Design

Residential accounts represent about 86 percent of total SPU retail water accounts. Residential customers are further broken into four subclasses: in-city customers, Shoreline customers, other out-of-city customers, and master-metered customers. Low-income customers in any of these residential subclasses may qualify for a discount off their water utility bill. This section provides additional detail on the components of the residential rate design, the proposed residential rate changes, residential rate subclasses and the low income credit program.

Under this rate proposal, residential rates would increase a typical single family residential bill by $4.44 per month in 2009, $2.36 per month in 2010 and by $3.11 in 2011 (given constant consumption). These impacts can vary based on the amount of water used, as presented in **Table 5-2**.

Table 5-2
Monthly Residential Bills at Proposed Rates

CUSTOMER TYPE	MONTHLY CONSUMPTION		MONTHLY RESIDENTIAL BILLS 2008 Adopted	2009 Proposed	Change from 2008	2010 Proposed	Change from 2009	2011 Proposed	Change from 2010
Low Volume	Winter	2.9	$17.00	$20.06	$3.06	$21.69	$1.63	$23.84	$2.16
User	Summer	3.8	$20.34	$24.02	$3.68	$25.98	$1.96	$28.55	$2.57
(15th %tile)	**Average**	3.2	**$18.11**	**$21.38**	**$3.27**	**$23.12**	**$1.74**	**$25.41**	**$2.29**
Median	Winter	5.2	$23.10	$27.26	$4.16	$29.47	$2.21	$32.39	$2.93
User	Summer	6.1	$27.62	$32.61	$5.00	$35.28	$2.66	$38.76	$3.48
(50th %tile)	**Average**	5.5	**$24.61**	**$29.05**	**$4.44**	**$31.41**	**$2.36**	**$34.52**	**$3.11**
High Volume	Winter	9.8	$35.08	$41.38	$6.31	$44.73	$3.35	$49.17	$4.43
User	Summer	13.4	$51.94	$61.36	$9.42	$66.35	$4.99	$72.88	$6.53
(85th %tile)	**Average**	11.0	**$40.70**	**$48.04**	**$7.35**	**$51.94**	**$3.90**	**$57.07**	**$5.13**
Very High	Winter	32.0	$93.24	$109.98	$16.74	$118.88	$8.90	$130.64	$11.76
User	Summer	50.0	$340.95	$402.78	$61.83	$435.48	$32.70	$478.50	$43.02
	Average	38.0	**$175.81**	**$207.58**	**$31.77**	**$224.41**	**$16.83**	**$246.59**	**$22.18**

Note: All bill impacts are for in-city customers and assume a ¾" meter.

5.2.1. Residential Rate Structure

Residential customers pay a fixed base service charge plus a commodity rate which is a single rate in the off-peak season (September 16 – May 15) and a three-tiered rate structure in the peak season (May 16 – September 15).

Base Service Charge

The base service charge is a fixed monthly fee which varies by water meter size. This charge is structured to equitably distribute costs that are not related to the volume of water used (i.e. bill production, customer service, water service inspections, and meter reading, maintenance and replacement). The cost differential, or progression, between different meter sizes is based on 1) annualized costs, by meter size,

for meter maintenance, testing, repair, replacement and service renewal; and 2) annual customer service costs. The progression used in this proposal is based on updated costing data.

Commodity Rate

Residential commodity rates consist of three tiers associated with differing usage volumes: 1) up to 5 ccf/month; 2) the next 13 ccf/month (6 to 18 ccf); and 3) above 18 ccf/month. The third-tier water rates affect single-family residential (SFR) and duplex customers who use more than 36 CCF for a 60-day billing period (or more than 18 CCF for a 30-day billing period). Historically, one out of ten residential customers has some consumption at the third-tier level. In the past, the City has implemented a third-tier on a temporary basis to discourage water use under drought conditions. Residential customers were reintroduced to third-tier water rates during the 2001 drought. The third-tier rate was continued for 2002, but the Mayor and City Council reduced the rate and increased the ccf threshold effective July 16, 2002. Peak third-tier rates were not increased from July 16, 2002 to 2008 and are now only 2.6 times the second tier rate. This rate study proposes to increase third tier rates at the same percentage as the other commodity rates. .

5.2.2. Proposed Residential Increase

This study proposes similar increases in residential commodity rates and the ¾ inch meter base service charge. Proposed residential rate schedules by subclass are found in the following **Tables 5-3:**

Table 5-3
Proposed Residential Rates

	Current Rate	2009 Rate	2010 Rate	2011 Rate
Commodity				
Off-Peak ($/ccf)	$2.62	$3.09	$3.34	$3.67
Peak ($/ccf)				
Up to 5 ccf/mo	$2.88	$3.40	$3.68	$4.04
Next 12 ccf/mo	$3.35	$3.96	$4.28	$4.70
Above 18 ccf/mo	$8.55	$10.10	$10.92	$12.00
Base Service Charge ($/mo)				
3/4 inch	$9.40	$11.10	$12.00	$13.20
1 inch	$10.00	$11.40	$12.40	$13.60
1 1/2 inch	$14.50	$17.60	$19.10	$21.00
2 inch	$21.70	$22.50	$23.20	$23.20
3 inch	$55.30	$69.13	$74.73	$82.20
4 inch	$92.20	$103.70	$112.10	$123.30

Note: All rates above are in-city.

In 2009 the increase in the base meter charge for residential meters larger than ¾ inch varies by meter size to better align rates to differences in cost progression by meter size (based on updated cost data). Following this re-alignment, the proposed 2010 and 2011 increases are similar across meter sizes. Two exceptions are the 2 inch and 3 inch meter base service charges. The current 2 inch rate of $21.70 is significantly above the cost progression. The proposed smaller increases in this charge will bring it in-line with the new progression by 2011. The current 3 inch charge is significantly below the cost progression; however the proposed increase is capped at 25% for 2009 in order to limit the customer

impact. For 2010 and 2011 the proposed 3 inch percent increase is similar to the ¾ inch increase. The final result is that the 3 inch charge is closer, but still below the cost progression.

5.2.3. Residential Sub-Classes

The majority of Seattle Public Utilities' residential customers live within City limits (about 146,700 accounts). However, SPU also directly provides water service to about 10,160 residential customers in the City of Shoreline, and 4,700 other residential customers who reside outside of City boundaries. Each of these residential customer groups, or sub-classes, pay a different rate due to differences in cost of service and/or historic agreements governing these relationships. In addition, master metered residential developments (MMRD) comprise another residential sub-class with its own distinct rates.

Outside City Residential Rates (except Shoreline).

SPU sets the base meter and commodity rates for SPU customers residing outside of Seattle City Limits at 14 percent greater than in-city rates. Certain characteristics of these areas increase the cost of service, including lower-density development and topography which limits the use of gravity fed systems. Both factors cause higher capital and operating costs (longer water mains, more pumping) per unit of water delivered. In addition, field crews, meter readers, inspectors, and other employees, along with vehicles and equipment, must travel farther to work on parts of the system that serve outside city customers.

Proposed outside-City residential rates are found in **Appendix E**.

Shoreline Residential Rates.

SPU sets the base meter and commodity rates for SPU customers residing in Shoreline approximately 21 percent higher than in-city rates. This rate surcharge is based on the 14 percent out-of-city surcharge (discussed above) plus an additional six percent to cover City of Shoreline franchise fees. Since 1999 Shoreline has charged SPU a franchise fee on the water service SPU provides to Shoreline residents. This fee is set at six percent of total Shoreline customer revenue. All of the revenues from this fee are paid to the City of Shoreline and neither Seattle nor any water customer outside of Shoreline receives a benefit from the associated revenues.

Proposed Shoreline residential rates are found in **Appendix E.**

Master-Metered Residential Development Rates

These rates apply to residential developments with master meters of 1½ inch or larger which operate and maintain their own distribution systems on private property. The water service to these developments primarily serves single-family detached residences on at least two separate legal parcels.

A separate rate structure was established for MMRD customers in 1995, with residential rates applying in the peak season and an escalated general service rate applying in the off-peak season. This rate structure recognized the fact that MMRDs, although considered general service habitations, experienced peak irrigation demands similar to those of residential customers. The off-peak (and second-tier peak) commodity rates for residential and general service were brought in sync in 2008, and therefore, MMRD rates are currently identical to residential rates. At present, all MMRD customers reside in Shoreline and pay Shoreline residential rates.

Proposed MMRD rates are found in **Appendix E**.

5.2.4. Low Income Credits

The City assists qualified low-income customers with their water bills by providing a 50 percent credit on their utility bills, which is one of the most generous assistance policies in the nation. Income guidelines vary based on the number in the household, monthly income and annual income. Income limits change every January but are currently based on 70 percent of the State median income for low income seniors and disabled customers and on 200 of the federal poverty level for all other low income customers.

Currently, about 9,800 water customers receive a 50 percent discount on their water rates. About two thirds of these low income assistance customers receive their credit on their SPU combined utility bill while the other third receive their credit through their City Light bill. For customers billed by SPU, the discount cuts their water bill in half. The City Light bill is used as the credit mechanism for customers who do not directly receive a SPU bill, such as customers living in apartment complexes, who typically receive a City Light bill but their utility costs for water, sewer and solid waste are included in their rent. These customers receive a fixed dollar credit via their City Light bill, which approximates the 50 percent discount.

Table 5-4 presents the proposed discounts for 2009 through 2011.

Table 5-4
Proposed Rate Assistance Discounts

Customer-type	Current	2009	2010	2011
SPU-billed customers	50% Discount	50% Discount	50% Discount	50% Discount
Non-SPU-billed customers				
Single-family (Residential)	$13.35/month	$14.53/month	$15.71/month	$17.27/month
Multi-family (Gen. Serv.)	$6.10/month	$7.96/month	$8.61/month	$9.45/month

5.3. General Service Rate Design

General services accounts represent about 12 percent of total SPU retail water accounts. General service customers are also broken into three subclasses: in-city customers, Shoreline customers, and other outside-City customers. This section provides additional detail on the components of the general service rate design, the proposed general service rate increase and general service rate subclasses.

The proposed rates will affect general service customers in varying degrees depending on the volume of water used. **Table 5-5** presents projected bill impacts for a sampling of general service customer types.

Table 5-5
Monthly General Service Bills at Proposed Rates

CUSTOMER TYPE	MONTHLY CONSUMPTION		MONTHLY GENERAL SERVICE BILLS						
			2008 Adopted	2009 Proposed	Change from 2008	2010 Proposed	Change from 2009	2011 Proposed	Change from 2010
Convenience	Winter	19	$59.18	$69.81	$10.63	$75.46	$5.65	$82.93	$7.47
Store	Summer	22	$83.10	$98.22	$15.12	$106.16	$7.94	$116.60	$10.44
(3/4" meter)	**Average**	**20**	**$67.15**	**$79.28**	**$12.13**	**$85.69**	**$6.41**	**$94.15**	**$8.46**
Apartment	Winter	57	$159.34	$187.53	$28.19	$202.78	$15.25	$222.79	$20.01
Bldg (15 units)	Summer	66	$231.10	$272.76	$41.66	$294.88	$22.12	$323.80	$28.92
(1" meter)	**Average**	**60**	**$183.26**	**$215.94**	**$32.68**	**$233.48**	**$17.54**	**$256.46**	**$22.98**
City	Winter	750	$2,057	$2,421	$364	$2,617	$196	$2,876	$259
Hall	Summer	900	$3,107	$3,668	$561	$3,964	$296	$4,353	$389
(4" meter)	**Average**	**800**	**$2,407**	**$2,837**	**$430**	**$3,066**	**$229**	**$3,368**	**$302**
Large	Winter	3800	$10,155	$11,941	$1,786	$12,891	$950	$14,145	$1,254
Industrial	Summer	4400	$14,939	$17,623	$2,684	$19,031	$1,408	$20,879	$1,848
(8" meter)	**Average**	**4000**	**$11,750**	**$13,835**	**$2,085**	**$14,938**	**$1,103**	**$16,390**	**$1,452**

Note: All bill impacts are for in-city customers.

5.3.1. General Service Rate Structure

The general service rate structure is nearly identical to that for residential customers with a base service charge that varies by meter size and peak and off-peak commodity rates. In general, the discussion in Section 5.2.1 on these two rate components is applicable to general service rates.

The primary difference between the two rate structures is that general service customers do not have tiered peak rates[7]; all consumption is charged at a single rate. In addition, the general service base service charge progression includes several larger meter rates which are not applicable to residential customers.

Since 2008, SPU has sought parity between residential and commercial rates when the actual cost of service allocations permit. In this rate proposal, we are able to maintain this parity in spite of the increased cost allocation to general service (discussed in section 4.4) due to the fact that residential demand is falling faster than general service demand (discussed in section 3.6). Proposed 2009- 2011 commodity and base service charges for the two classes are virtually identical[8].

5.3.2. Proposed General Service Increase

This proposal maintains the parity between general service and residential rates described in 5.3.1, with the same rate increases proposed for general service and residential customers (see 5.2.2 for further detail on proposed increases). With respect to larger meter rates not applicable to residential customers, rates

[7] The residential first tier peak rate is intended as a "lifeline" rate and as such does not apply to general service. The third tier peak rate is intended to capture "excessive" or "wasteful" water consumption. Because each general service customer has a different level of consumption, SPU would not be able to set a threshold amount above which consumption is considered excessive.

[8] The general service peak rate is equal to the second tier residential peak rate.

for meter sizes 6 inch and larger are proposed to remain at 2008 rate levels to recognize that these rates are already set significantly above their associated cost. The proposed 2010 and 2011 increases in the 6" meter service charge better aligns the rate with the underlying updated cost progression beginning in 2010.

Proposed general service rates shown in the following Table 5-6:

Table 5-6
Proposed General Service Rates

	Current Rate	2009 Rate	2010 Rate	2011 Rate
Commodity				
Off-Peak ($/ccf)	$2.62	$3.09	$3.34	$3.67
Peak ($/ccf)	$3.35	$3.96	$4.28	$4.70
Base Service Charge ($/mo)				
3/4 inch	$9.40	$11.10	$12.00	$13.20
1 inch	$10.00	$11.40	$12.40	$13.60
1 1/2 inch	$14.50	$17.60	$19.10	$21.00
2 inch	$21.70	$22.50	$23.20	$23.20
3 inch	$55.30	$69.13	$74.73	$82.20
4 inch	$92.20	$103.70	$112.10	$123.30
6 inch	$125.00	$127.60	$137.90	$151.70
8 inch	$199.00	$199.00	$199.00	$199.00
10 inch	$297.00	$297.00	$297.00	$297.00
12 inch	$402.00	$402.00	$402.00	$402.00
16 inch	$477.00	$477.00	$477.00	$477.00
20 inch	$614.00	$614.00	$614.00	$614.00
24 inch	$771.00	$771.00	$771.00	$771.00

Note: All rates above are in-city.

5.3.3. General Service Sub-Classes

As with residential accounts, the majority of Seattle Public Utilities' general service customers are located within City limits (about 22,000 accounts). In addition, SPU directly provides water service to 10,800 general service customers in the City of Shoreline, and 5,150 other general service customers outside of City boundaries. Similar to residential accounts, Shoreline general service customers pay a 21 percent surcharge over the in-city general service meter and commodity rates and other outside-City customers pay a 14 percent surcharge. For further details, see Section 5.2.3.

5.4. Private Fire Rate Design

Private fire rates are charged for water service to fire sprinkler systems located on a customer's property. Private fire service customers pay a **flat monthly meter base charge** which varies with meter size. This base fee includes an allowance for water consumption for testing and pump cooling. The monthly allowance is 5 ccf for meters up to 6 inches and 10 ccf for meters 8 inches and larger. A **penalty charge** ($20.00/ccf) is assessed on non-fire related consumption in excess of the allowed amounts.

Since the percent of revenue generated from private fire service at current rates (2.1 percent) is greater than the cost share calculated by the current cost allocation process (1.2 percent), it is proposed that fire service rates be held constant for 2009 through 2011. Proposed fire service rates for inside city customers are presented in the **Table 5-7** below.

Table 5-7
Proposed Private Fire Rates

	Current Rate	2009 Rate	2010 Rate	2011 Rate
Commodity				
Penalty Charge ($/ccf)	$20.00	$20.00	$20.00	$20.00
Base Service Charge ($/mo)				
2 inch	$15.40	$15.40	$15.40	$15.40
3 inch	$20.00	$20.00	$20.00	$20.00
4 inch	$37.00	$37.00	$37.00	$37.00
6 inch	$63.00	$63.00	$63.00	$63.00
8 inch	$100.00	$100.00	$100.00	$100.00
10 inch	$144.00	$144.00	$144.00	$144.00
12 inch	$210.00	$210.00	$210.00	$210.00

Note: All rates above are in-city.

Proposed private fire service rate schedules by subclass are found in **Appendix E** of this study.

Similar to other retail customers, Shoreline private fire customers pay a 21 percent surcharge over the in-city private fire rates and other outside-City customers pay a 14 percent surcharge. For further details, see Section 5.2.3.

5.5. Public Fire Rate Design (HYDRANTS)

Fire hydrants provide water used by public fire departments to fight fires. Most fire hydrants owned by SPU are located within the City of Seattle. The majority of other hydrants are in retail service areas just north or south of the city limits. In order to more closely associate the cost of providing water for fire fighting with the customers that use this water, SPU directly charges local governments an annual fee for public fire service. Charging local governments for the public fire service within their jurisdiction insures that this portion of revenue requirement is not borne by Seattle's retail customers.

5.5.1. Rate Structure

Public fire customers are charged ***a flat annual fee*** which varies based on the size of main attached to the hydrant. SPU has established two different flat rates for fire service to reflect both service level and cost differences between four-inch and larger mains[9]. Four-inch mains provide substantially lower fire flows than larger mains. In addition, four-inch mains, while sufficient for domestic service, generally do not meet current state installation standards for mains supporting hydrants. Consequently, all of the cost of

[9] State requirements for hydrant service have become progressively more stringent over the last century. Four-inch mains were once considered sufficient to provide fire flows when originally installed. Now, a minimum of six inches is required. Most areas with both domestic and fire flow demands require a minimum of eight-inch mains.

over-sizing water mains to provide fire flow, about half of total hydrant service cost, is assigned to larger mains. The balance of costs are shared between the two rates based on the number of units, or hydrants. Hydrants connected to larger mains currently account for about 99 percent of all units within the SPU service area.

5.5.2. Proposed Public Fire Rate Increase

This study proposes a 2009 rate *increase* for larger main rate and a *decrease* in the 4-inch main rate. Uniform rate increases are proposed for 2010 and 2011, respectively. **Table 5-8** presents the proposed 2009-2011 public fire rates.

Table 5-8
Proposed Public Fire Rates

	Current Rate	2009 Rate	2010 Rate	2011 Rate
Larger Mains	$317.21	$339.54	$363.32	$395.51
4-Inch Mains	$172.81	$169.82	$181.72	$197.82

The larger main rate increase (and 4-inch main rate decrease) is due to two primary factors: a) an increase in watermain costs, which are allocated exclusively to larger main rates, and b) an increase in the number of larger main units relative to 4-inch units since the last rate study, which increases the larger main allocation of non-main expense.

Table 5-10 presents projected annual bills for public fire customers at proposed rates.

Table 5-10
Annual Public Fire Bills at Proposed Rates

	Hydrant Count			2009	2010	2011
	4-Inch Mains	Larger Mains	Total	Proposed Bill	Proposed Bill	Proposed Bill
Burien	24	73	97	$28,863	$30,884	$33,620
Lake Forest Park	5	48	53	$17,147	$18,348	$19,974
Seattle	124	16,832	16,956	$5,736,265	$6,138,005	$6,681,740
Shoreline	19	889	908	$305,081	$326,448	$355,366
Unincorporated King County	47	330	377	$120,031	$128,438	$139,815
Total	**219**	**18,172**	**18,391**	**$6,207,388**	**$6,642,122**	**$7,230,515**

APPENDIX A: COST ALLOCATION DETAILS

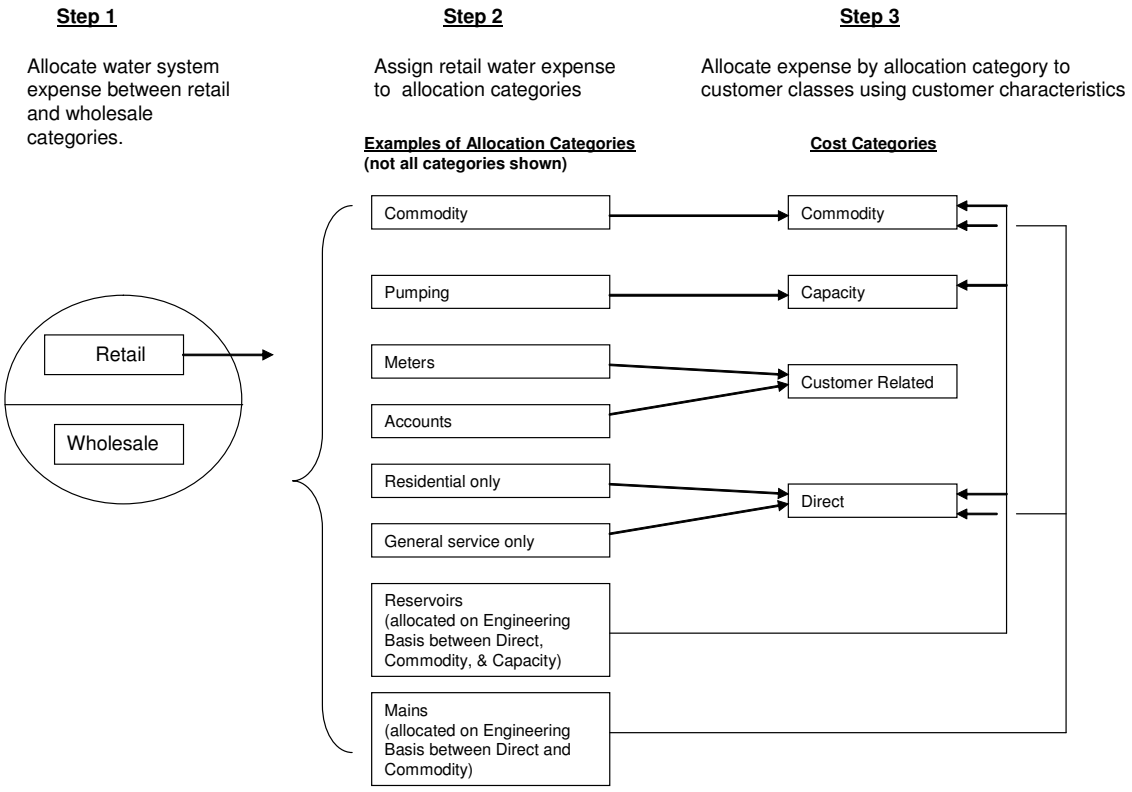
Chapter 4 contained an overview of how the 2009-2011 water revenue requirements were allocated to each cost category. This Appendix provides the detail behind those allocations.

SPU uses imbedded, or historical cost of service from a test year (2007 for this rate study), to determine the percentage of revenue to be assigned to each customer class in the rate-setting period. The costs from the test year are broken into service-based allocation categories that are then allocated to cost categoroies based on defined customer characteristics. The resulting percentages from the test year are then applied to the 2009-2011 revenue requirements.

Three steps are required to determine the revenue split between test year cost component categories:

1. Allocation of water system expense into retail and wholesale buckets.
2. Allocation of retail water expense between different allocation categories.
3. Allocation of the cost assigned to each allocation category between cost categories.

Figure A1-1
Assignment of Water System Expense to Cost Component Categories
Allocation Steps



Prior to launching into the details of the separate steps, however, it is important to provide some context.

A1.1. Cost Allocation Context

The test year cost of service is calculated using a utility-based cost method whereby test year revenue (or total cost) is the sum of three components: O&M expense, depreciation expense, and a return on plant in service. The cost allocation steps described in Sections A1.2 thru A1.4 are applied separately to each of the three cost components. Below is a description of each these components within the context of the current rate study.

O&M. Total O&M spending is equal to O&M presented in the test year (2007) water fund audited financial statements, excluding debt service, depreciation, and certain non-cash accrued expenses.

Depreciation (use of capital assets). Total depreciation is equal to the amount presented in the 2007 Water Fund audited financial statements, excluding depreciation on contributed assets (those assets, such as water meters, whose installation was paid for directly by individual customers).

Return on Assets. This is the result of applying an "interest rate" (rate of return or ROR) to the net book value of plant in service. Plant in service is equal to the amount presented in the 2007 audited financial statements, excluding contributed assets. Two rates of return are used in this cost allocation. "Regional" assets (assets that are shared with the wholesale customers and whose costs are allocated to wholesale – primarily watersheds and transmission assets) use the rate of return as defined in the wholesale contracts (6.2 percent in 2007). The rate of return on retail assets (i.e., everything that is not regional) is adjusted so that the total rate of return is equal to the difference between total retail service revenue and the sum of O&M and depreciation in the test year. So,

(Regional assets*Regional ROR) + (Retail assets*Retail ROR) + Depreciation + O&M = Retail revenue

where all values are for the 2007 test year. The rate of return on retail assets for 2007 is 3.8 percent.

A1.2. Step One: Water system expense allocation

The first step is to allocate test year expenses between wholesale and retail. This is similar to the split that is done to determine the wholesale revenue requirement for each year of the rate study, but it uses the test year data rather than 2009-2011 projections.

Both wholesale customers (suburban municipalities and water districts) and Seattle's direct service retail customers share the cost of the "regional" portion Seattle's water system, including facilities such as the watersheds and transmission pipelines. In addition, the system includes certain "sub-regional" assets, such as the West Seattle and Des Moines pipelines, which serve both Seattle retail customers and wholesale customers in the applicable sub-regions.

This step begins by assigning O&M and asset costs (depreciation and return on plant) to regional, sub-regional, and retail buckets. The regional O&M costs are then "grossed up" as per the contracts to reimburse the Water Fund for additional general and administrative overhead costs not included in the regional bucket. This is similar to the G&A allocation used for CIP, although the rate is different.

The resulting costs are then split by average annual flows (as per contracts) between wholesale and retail customers. For 2007, 51 percent of regional costs went to wholesale and 49 percent to retail. Because the O&M costs were grossed up and are now higher than actual O&M costs in the test year, there is a credit to be subtracted from the retail test year costs. The credit to retail is the amount wholesale would pay, so it is 51 percent rather than 49 percent.

Table **A1-1** presents Seattle's share of combined O&M, depreciation, and return on asset expense in the 2007 test year.

Table A1-1
Seattle's Share of Water System Utility-based Expense (2007)

	System Expense	Retail Share (%)	Retail Share ($)
Regional Expense	93,697,593	49%	46,215,624.26
Regional Credit	(18,779,427)	51%	(9,516,617.38)
Sub-regional expense	1,691,359	67%	1,135,885.88
Retail Expense	80,768,028	100%	80,768,028.12
Total water system expense	**157,377,553**		**118,602,921**

A1.3. Step Two: Allocation of retail expense to allocation categories

In step two, the retail share of each O&M activity and water asset (for depreciation and return on plant allocation) during the test year is assigned to one of eleven allocation categories. This is an intermediate step which groups assets and services which can then be allocated using the same customer characteristics (described in section A1.4). **Table A1-2** presents the distribution of actual 2007 retail expense between the various allocation categories.

Table A1-2
2007 Retail Water Expense by Allocation Category

	O&M	Depreciation	Return on Plant	Total Retail Expense
Commodity	25,672,719	12,122,977	20,583,514	58,379,210
Pumping	482,670	251,676	199,048	933,394
Meters & Services	2,592,771	3,750,504	4,080,736	10,424,011
Customer service/account-related	4,740,225	1,394,091	188,578	6,322,895
Residential	820,938	-	-	820,938
General Service	635,725	-	-	635,725
Public Fire	901,134	62,957	81,597	1,045,689
Reservoirs	1,694,232	839,612	1,432,135	3,965,978
Mains	1,938,093	1,708,797	2,758,119	6,405,010
Asset composite	13,508,751	5,439,786	1,785,740	20,734,278
Overall composite	8,935,792	-	-	8,935,792
Total retail water expense	61,923,051	25,570,402	31,109,467	118,602,921

A1.4. Step Three: Allocation of expense by allocation category to cost component categories

In Step Three, each allocation category from step two is distributed between the cost component categories. Some of these are fairly straightforward (Commodity is assigned to Average Annual Flow) and some are a little more complicated. The details of each assignment follow Table A1-3.

Table A1-3
Allocation Factors for Assignment of Retail Expense
to Cost Component Categories

	COST CATEGORIES							
	Commodity	**Capacity**		**Customer-related**		**Direct Assignment**		
ALLOCATION CATEGORIES	Average Annual Flow	Peak Day Flow	Peak Week Flow	Meter Equiv	Accounts	Residential	General Service	Public Fire
Commodity	100.0%							
Pumping			100.0%					
Meters & Services				100.0%				
Customer Service & Account-Related					100.0%			
Residential						100%		
General Service							100%	
Public Fire								100%
Reservoirs	78%	6%	14%					2%
Mains	53%							47%
Asset composite	74%	0.3%	2%	16%	3%			5%
Overall composite	73%	0.3%	2%	12%	8%			5%

Commodity. This category is primarily made up of the regional and sub-regional costs identified in Step One above. These costs are assigned to the Commodity category because average annual flow is what drives the cost to the retail ratepayers.

Pumping. Pumping costs are allocated to peak week because the pump stations are primarily sized to meet peak week demands (shorter duration peaks such as daily swings are met by drawing down reservoir levels).

Meters and Services. This category contains costs such as service replacements and meter testing and repair. These costs tend to vary by meter size and are allocated using a factor called "Equivalent Meters" that assigns a higher weight to larger meters. Additional details on the Equivalent Meter are in Section A1.5.

Customer service & account-related. This category includes customer related expenses which do not vary with water usage or meter size. These costs are assigned to the Number of Accounts category. Included in this category are general customer service and account administration expense as well as the Water Fund's share of the CCSS billing system, communication equipment (Interactive Voice Response) and other IT investments.

Residential, General Service, and Public Fire. These categories include expenses which are directly attributable to specific customer classes. Examples are:

Residential - Residential customer service teams
General Service - General Service customer service teams
Public Fire - Hydrant repair and flow testing

Reservoirs. The storage capacity of reservoirs provides: a) several days of supply in the case of emergencies (e.g. earthquakes); b) a reserve of water for fighting fires; and c) a source of water for heavy demand periods (diurnal peaks and hot day peaks). The cost of reservoirs is allocated to these uses based on an engineering analysis of the proportion of capacity devoted to each use.

Mains. Watermains are sized to meet fire flow requirements and domestic demands for water. The cost for this allocation category is split between Public Fire and Average Annual categories based on the proportional share of total installed main cost attributed to fire uses and to domestic uses. Section A1.6 contains a detailed description of this calculation.

Asset Composite. This category includes items that support the Water Fund's asset base, such as field crew scheduling and heavy equipment. The allocation among customer characteristics is the average allocation of all previously assigned asset costs.

Overall Composite. This category includes items that support the overall Water Fund, such as Finance and the Director's Office. The allocation among customer characteristics is the average allocation of all costs.

The application of the allocation factors identified in **Table A1-2** to the test year (2007) expense by allocation category in **Table A1-3** gives us the distribution of actual test year costs between cost component categories, as presented in **Table A1-4** below.

Table A1-4
Retail Component Cost Allocation
2007 Cost of Service (O&M + Depreciation + Rate of Return)

		COST CATEGORIES							
	Total Retail	Commodity	Capacity		Customer-related		Direct Assignment		
		Average Annual	Peak Day	Peak Week				General	
ALLOCATION CATEGORIES	Expense	Flow	Flow	Flow	Meter Equiv	Accounts	Residential	Service	Public Fire
Commodity	58,379,210	58,379,210							
Pumping	933,394			933,394					
Meters & Services	10,424,011				10,424,011				
Customer Service & Account-Related	6,322,895					6,322,895			
Residential	820,938						820,938		
General Service	635,725							635,725	
Public Fire	1,045,689								1,045,689
Reservoirs	3,965,978	3,085,531	249,857	571,101					59,490
Mains	6,405,010	3,394,655							3,010,355
Asset composite	20,734,278	15,446,152	60,005	326,125	3,283,334	663,552			955,111
Overall composite	8,935,792	6,532,604	25,190	149,979	1,088,560	726,151			413,308
Total	118,602,921	86,838,153	335,051	1,980,599	14,795,905	7,712,598	820,938	635,725	5,483,952

These costs are then divided among customer classes based on the characteristics of each customer class. This step is discussed in detail in sections 4.3 and 4.4.

A1.5. Calculation of Equivalent Meters Allocator.

Section 4.3 in Chapter 4 discusses the use of the Equivalent Meters allocator to assign certain customer-service related expense between customer classes. Equivalent Meters are the number of meters by size (3/4 inch, 1 inch, 1.5 inch…) weighted by and equivalent factor, which is the sum of 1) annualized costs, by meter size, for meter maintenance, testing, repair, replacement and service renewal; and 2) annual customer service costs for each size meter. The progression is different for domestic versus fire service

customers since a fire service typically consists of a large pipe but only a ¾" "tattletale" meter. Table A1-5 presents the calculation basis for the equivalent meters allocator.

Table A1-5
Equivalent Meters Allocation Percentage Basis

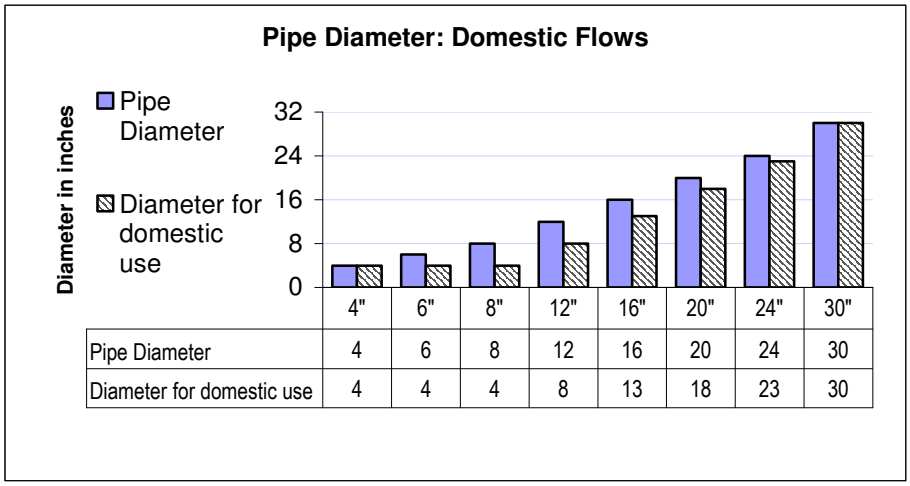
Meter Counts & Equivalencies								
		Residential		General Service		Fire Service		
Meter Size	Equiv Factor	# of Meters	Equiv Meters	# of Meters	Equiv Meters	Fire Equiv Factor	# of Meters	Equiv Meters
0.75 inch	1.0	141,194	141,194	7,024	7,024	1.0	13	13
1 inch	1.0	16,296	16,296	5,318	5,318	1.0	3	3
1 1/2 inch	1.6	1,217	1,947	3,624	5,798	1.3	2	3
2 inch	1.8	434	781	4,515	8,127	1.5	566	849
3 inch	11.4	1	11	460	5,244	3.5	30	105
4 inch	13.2	1	13	674	8,897	4.3	1,448	6,226
6 inch	16.4	-	-	331	5,428	5.3	1,200	6,360
8 inch	19.4	1	19	131	2,541	6.0	705	4,230
10 inch	23.7	-	-	38	901	6.9	28	193
12 inch	34.2	-	-	7	239	7.8	9	70
16 inch	37.1	-	-	-	-	8.7	-	-
20 inch	42.0	-	-	2	84	9.5	-	-
24 inch	47.0	-	-	-	-	10.4	-	-
Total			**160,262**		**49,602**			**4,004**
Percentage			**61%**		**19%**			**2%**

A1.6. Calculation of Watermains Allocator

Watermains are sized to meet fire flow requirements and domestic demands for water. In sizing the watermain, the pipe must have sufficient capacity to meet two separate criteria; (i) peak hour domestic demand and (ii) peak day domestic demand + fire flow requirements. For medium and small-size pipes (8 inch diameter or less) the second criteria will be the binding constraint. For larger size pipe i.e., pipes that are serving very large areas or areas with very dense developments, the first criteria (peak hour demand) will be the binding constraint.

The most common size pipe in Seattle's system is, by far, an 8 inch diameter pipe. In areas served by 8 inch mains, domestic peak hour flows, i.e., the first criteria, can typically be met with a 4 inch mains. The oversizing from 4 inch to 8 inch is needed to meet the second criteria. Taking into account that hydraulic capacity grows exponentially with the diameter of the pipe, this means about 25 percent of the 8 inch pipe is serving domestic flows and 75 percent is providing fire protection. Pipes smaller than 8 inch were installed on the system when the fire flow requirements were lower than they are today. For this allocation exercise, the cost of 4 inch mains were assigned to domestic service and the cost of 6 inch mains were assigned to public fire protection. For pipes larger than 8 inch, the share of capacity needed for fire flows shrinks until we reach pipes with diameters of 30 inch or more. The graph below shows the relationship between pipe size and fire flow requirements expressed in diameters.

Chart A1.1
Actual Pipe Diameters versus Diameter Required for Domestic Use



	4"	6"	8"	12"	16"	20"	24"	30"
Pipe Diameter	4	6	8	12	16	20	24	30
Diameter for domestic use	4	4	4	8	13	18	23	30

The cost of watermains is split between fire protection and domestic uses based of the shares of hydraulic capacity discussed above. The first step is to compute the installed cost for all the mains in the system.

[Step 1] Installed Cost $= \sum (\$Cost/ LF_d) \times (LF_d)$ summed over all diameters.
where $\$Cost/ LF_d$ = the installed cost per lineal feet of a pipe of diameter 'd' ,and
where LF_d = the number of lineal feet in the system of pipe of diameter 'd'.

The second step is to determine cost associated with fire protection service.

[Step 2] Fire Protection Installed Cost =
$\sum$ (Hydraulic Capacity for $Fire_d$) ÷ (Hydraulic Capacity of $Pipe_d$) x ($\$Cost/ LF_d$) x (LF_d)

The final step is to determine the proportion of the installed cost devoted to fire protection.

[Step 3] Proportion of installed costs for fire protection =
(Fire Protection Installed Cost) ÷ (Installed Cost)

The percentage share determined in Step 3 is then used to assign watermain costs to fire protection. As it turns out, the cost share for fire protection for the entire system comes to 47 percent.

APPENDIX B: 1982 WHOLESALE CONTRACT RATE STUDY

Seattle Public Utilities
2009-2011 Wholesale Water Rate Study
1982 Contracts

B1.1. Summary

Seattle proposes to adjust wholesale water rates beginning January 1, 2009 as shown below.

	Current (2008)	January 1, 2009	January 1, 2010	January 1, 2011
Old Water (per ccf)				
Off Peak	$ 1.08	$ 1.19	$ 1.29	$ 1.40
Peak	$ 1.67	$ 1.83	$ 1.89	$ 2.15
Percent Increase		10%	8%	9%
Growth Charge (per ccf)	$ 0.91	$ 0.31	$ 0.31	$ 0.31
Percent Increase		(66)%	0%	0%
Demand Charge	$ 22.00	$ 22.00	$ 22.00	$ 22.00
Base Service Charge (per month)				
1 inch	$ 54.00	$ 54.00	$ 54.00	$ 54.00
1-1/2 inch	$ 60.00	$ 60.00	$ 60.00	$ 60.00
2 inch	$ 66.00	$ 66.00	$ 66.00	$ 66.00
3 inch	$ 78.00	$ 78.00	$ 78.00	$ 78.00
4 inch	$ 108.00	$ 108.00	$ 108.00	$ 108.00
6 inch	$ 192.00	$ 192.00	$ 192.00	$ 192.00
8 inch	$ 300.00	$ 300.00	$ 300.00	$ 300.00
10 inch	$ 450.00	$ 450.00	$ 450.00	$ 450.00
12 inch	$ 528.00	$ 528.00	$ 528.00	$ 528.00
16 inch	$ 696.00	$ 696.00	$ 696.00	$ 696.00
20 inch	$ 948.00	$ 948.00	$ 948.00	$ 948.00
24 inch	$ 1,236.00	$ 1,236.00	$ 1,236.00	$ 1,236.00

Under the proposal, Old Water rates would increase 8-10 percent each year through 2011. The two primary drivers for the rate increase are: 1) the significant negative balance in the Old Water Purveyor Balance Account (PBA), which is amortized over 2009-2011 and increases the revenue requirement, and 2) "catching up" in 2009 to the difference between actual inflation experienced over the 2006-2008 timeframe to the 2006-2008 rate study assumptions.

Conversely, the New Water rate would decrease significantly due to: 1) refinancing of three Water Fund bonds which lowers the debt service cost allocated to New Water, and 2) higher than planned New Water sales in 2005 and 2006 contributing to a large positive balance in the New Water PBA.

B1.2. Background

Since 2002, seventeen customers have signed new contracts with Seattle, and the rates of these "new contract" purveyors are different from rates set under this rate study. In order to ensure that Purveyors remaining under the 1982 contract are not adversely affected by the contract changes, rates for the 1982 contract are set "as-if" all purveyors are still under the 1982 contract. Costs considered in this rate study and annual "true-up" calculations are the costs of serving all customers who originally signed the 1982 contracts. Revenues are those revenues that have been or will be received from customers served under the 1982 contract, plus revenues that SPU would have received had signatories to 1982 contracts not switched to new contracts. This approach has been presented to, discussed by, and approved in concept by the Finance and Legal Subcommittee of the Purveyor Committee.

B1.3. Overall Assumptions

1. Inflation is assumed to be 3.5 percent through the period of the rate study.
2. Seattle's average cost of debt is assumed at 4.7 percent, which is the rate calculated in the 2006 Purveyor Statements.
3. There are no new "New Expansion Facility" (NEF or "New Water Facility") projects over the period of the rate study. The only ongoing NEF project is Regional Water Conservation.
4. A "true up" is performed each year to compare the prior year's actual revenues and actual costs of service. A running balance of the excess or deficit in revenues is maintained in the "Purveyor Balance Accounts" for both Old and New water and presented in the yearly Purveyor Statements. This rate study sets rates to amortize the projected 2008 year-end balances over the 2009-2011 timeframe.
5. Flow Allocators identified in the 2006 Purveyor Balance Account Statements were used for this rate study.

B1.4. Operations and Maintenance Costs

Operations and Maintenance (O&M) costs are developed for 1982 contract holders by applying allocators to individual O&M activities, such as Watershed Road Maintenance. The allocators used are from the 2006 Purveyor Statements. Because final (e.g. audited) 2007 costs were not available, these allocators were applied to 2007 year end costs by activity as of January 16, 2008. For 2008, the detailed O&M budget was not yet known, so the total allocated O&M cost was indexed by the increase in the overall O&M budget over 2007 (5.8 percent). Costs for 2009-2011 were increased yearly by the assumed rate of inflation.

B1.5. Old Water Capital Costs

Yearly asset costs for Old Water are calculated on the "utility basis." Under the utility basis, the annual cost of an asset is depreciation plus the Net Book Value of the asset multiplied by a return on assets. This calculation is much like a home mortgage. The utility basis cost for each asset is then allocated to Purveyors using flows such as Peak Season flow through the asset. The flow allocators used were those identified in the 2006 Purveyor Statements. Administratively, there are three categories of assets to be

included in the rate study cost allocation: existing assets, future assets (in-construction or planned), and special assets.

Existing Assets
The cost basis for existing assets was the asset schedule used in preparation of the 2006 Purveyor Balance Account Statements. Depreciation and Net Book Value were calculated through 2011 and allocated using the 2006 allocators.

In-Construction and Future Assets
Identification of future assets came from the 6-year Capital Improvement Plan for the Water Fund and the Water Fund portion of the Technology 6-year Capital Improvement Plan. These plans list budgeted spending levels for each project for 2007 and beyond. The SPU financial system provided life-to-date spending on these projects through year-end 2006.

For each project, an in-service year was determined – typically the last year of spending in the CIP budget. Exceptions were annual programs (such as Transmission Pipeline Rehabilitation), which are capitalized at the end of each year. Interest costs associated with assets in construction ("AFUDC") were calculated for assets through June of the year they are to be placed in service, and depreciation was calculated for each project starting with the year after the asset is placed in service. All of these assumptions are consistent with SPU's actual accounting practices.

Assets were assigned cost allocators using the same methodology as existing assets. In a few cases, the CIP item consists of smaller projects (such as the Cathodic Protection Program), some included in the Purveyor rate base and some not. These assets were categorized where the majority of the costs will be incurred. When the projects are executed, they will be disaggregated for tracking and allocating actual costs.

Special Assets
There are several assets that receive special treatment for rate making/cost allocation purposes.

1. **Gains on the sale of land originally purchased for exchange within the Cedar River Watershed**
   These gains are invested in the Habitat Conservation Plan assets and amortized over the life of the HCP. This asset appears on the existing asset schedule, and reduces the annual cost of service.

2. **Interest paid during construction on the Tolt Filtration Plant**
   Wholesale customers agreed to pay a portion of interest costs during construction of the Tolt Filtration Plant. These payments reduce the rate-based cost of the Tolt Filtration Plant now that construction is complete. This reduction appears on the existing asset schedule.

3. **Interest paid during construction on the Cedar Treatment Plant**
   Wholesale customers agreed to pay a portion of the interest costs for the Cedar Treatment Plant during construction. These payments reduce the rate-based cost of the Cedar Treatment Plant now that construction is complete. This reduction appears on the existing asset schedule.

4. **Tolt Pipeline Loss Amortization**
   In accordance with the First Amendment to the 1982 Contract, the Tolt Pipeline Loss shall continue to be included in the rate base. This amount appears as a separate line item in the Cost Allocation Summary.

5. **Return on working capital – Old Water**
   In accordance with the 1982 Contract and First Amendment to the Contract, Purveyors pay a rate of return on Old Water working capital, which is defined as one eighth of annual operation and maintenance expenses allocated to Purveyors. The amount charged to the Purveyors annually is the Old Water working capital (as defined above) times the net difference of the rate of return provided

under the contract and the 90-day Treasury bill rate. This net interest amount from the 2006 Purveyor Statements is (0.1) percent, which actually results in a credit to Purveyors.

B1.6. New Water Capital Costs

Purveyors pay a share of the actual cash costs of New Water Facilities, including debt service and revenue contributions to the capital program.

Existing Assets
The Purveyor percentage share of the debt service of each outstanding bond issue is calculated in the Purveyor Statements. The percentage shares from the 2006 Purveyor Statements were applied to existing bond debt service payments to be made in 2009 through 2011.

In-Construction Assets
Purveyors were charged a share of debt service on current and future bond issues that will be used to finance New Water projects. Purveyors were also charged for revenue contributions to New Water Projects at the average cash contribution to CIP spending projected for each year: 20 percent in 2009 and 2010, and 22 percent in 2011.

Special Assets
There is one New Water item that receives special treatment for rate making and cost allocation purposes. In accordance with the 1982 Contract and First Amendment to the Contract, Purveyors contribute to New Water working capital, which is currently set at $16,000. Because this amount was previously funded by Purveyors, they now earn interest on the balance. The 2006 Purveyor statement rate of 4.8 percent was used through the period of the rate study.

B1.7. Amortization of Purveyor Balance Accounts

This rate study takes into account the actual Purveyor Balances from the 2006 Purveyor Statements and projects the results of the 2007 and 2008 True Ups. Rates are set to amortize the December 31, 2008 balances plus interest over the period 2009-2011.

The Old Water Purveyor Balance Account balance in 2006 was $(2.5) million and is projected to drop to $(8.7) million by the end of 2008. Amortizing this large negative balance is a significant rate driver for 2009-2011. The other significant rate driver is “catching up” to the actual inflation experienced over the 2006-2008 timeframe, which has been significantly higher than the 2.5 percent assumption used in 2006-2008 rate study.

For New Water, the $4.6 million surplus in 2006 is projected to grow to $7.7M by the end of 2008. This is the combined result of two items: 1) the Water Fund refinanced three outstanding bonds, lowering the debt service cost allocated to New Water, and 2) higher than planned New Water sales in 2005 and 2006 contributing to a positive balance in the New Water PBA.

B1.8. Cost Allocation Summary

	2006 Actual	2007 Projected	2008 Projected	2009 Projected	2010 Projected	2011 Projected
OLD WATER REVENUE REQUIREMENT						
Purveyor Rate Base	345,058,248	353,992,510	351,199,368	349,978,754	344,727,724	350,006,906
Rate of Return	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%
Original Cost of Plant	430,939,865	453,267,147	463,741,719	476,582,161	485,695,415	505,608,585
Less:Accumulated Depreciation	(88,369,514)	(101,082,044)	(114,454,588)	(128,582,572)	(143,016,126)	(157,721,810)
Plus: Working Capital Allowance	2,487,897	1,807,407	1,912,236	1,979,164	2,048,435	2,120,130
Old Water Revenue Requirement	46,606,797	42,901,592	45,148,619	46,378,904	50,288,517	54,611,825
Operating Expenses	19,903,175	14,459,253	15,297,890	15,833,316	16,387,482	16,961,044
Return on Plant	16,100,806	16,552,700	16,416,495	16,355,981	16,105,927	16,350,678
Return on Working Capital	(2,488)	(1,807)	(1,912)	(1,979)	(2,048)	(2,120)
Depreciation and Amortization	10,445,770	11,827,844	13,372,544	14,127,984	14,433,554	14,705,684
Other: TPL Loss/environ liab/expensed CIP	159,533	63,603	63,603	63,603	63,603	0
PBA Amortization					3,300,000	6,596,539
Old Water Revenue @ '08 rates	38,954,088	$39,917,351	$42,311,951	$42,322,751	$42,361,051	$42,393,451
at Planned Rates		39,918,097	42,311,951	46,378,904	50,288,517	54,611,825
Annual Revenue Surplus (Deficiency)	(7,652,709)	(2,983,495)	(2,836,669)	-	-	-
Required Rate Increase (over previous year)				9.58%	8.33%	8.51%
NEW WATER REVENUE REQUIREMENT	4,699,707	4,485,620	4,790,385	2,162,370	2,159,507	2,155,737
Operating Expenses	41,132	17,098	18,089	18,722	19,378	20,056
NEF Financed by:						
Debt	4,534,636	3,892,822	4,188,093	4,263,808	4,269,866	4,333,708
Operating Revenue	123,923	576,468	584,970	845,607	991,032	151,404
Interest on $16,000 Working Capital	16	(768)	(768)	(768)	(768)	(768)
PBA Adjustment				(2,965,000)	(3,120,000)	(2,348,663)
Revenue Sources	6,200,704	5,606,010	6,275,360	2,162,370	2,159,507	2,155,737
Revenue at Planned Rates	6,200,704	$5,606,010	$6,275,360	2,162,370	2,159,507	2,155,737
Demand Charges	0	0	0	0	0	0
Growth charges @ current ('08) rates	6,200,704	5,606,010	6,275,360	$6,279,910	$6,292,650	$6,309,030
Revenue Surplus (Deficiency)	1,500,997	1,120,390	1,484,975	-	-	-
Required Rate Increase (Decrease)	0%	0%	0%	-66%	0%	0%
TRUE UP ADJUSTMENT (BALANCE ACCOUNTS)						
Old water						
Net Excess (Deficit)	(2,551,930)	(5,535,425)	(8,492,034)	(8,757,836)	(5,869,455)	296,120
Interest		(119,941)	(265,802)	(411,618)	(430,964)	(296,120)
New Water						
Net Excess (Deficit)	4,621,749	5,742,139	7,444,337	4,759,427	2,002,475	(105,432)
Interest		217,222	280,090	363,048	240,756	105,432
Total Revenue from Purveyors at '08 rates:	45,154,792	45,523,361	48,587,311	48,602,661	48,653,701	48,702,481
Total Purveyor Revenues at Planned Rates:	45,154,792	45,524,107	48,587,311	48,541,273	52,448,024	56,767,562
Increase in Revenue Requirement (Old & New Combined):		0.8%	6.7%	-0.1%	8.0%	8.2%

B1.9. Rate Making

The essence of rate making is to determine the unit price by dividing the revenues to be collected by the units of service. Items such as the seasonal rate differential make this a bit more complicated and are discussed below.

Treatment of Rate Rounding

Water rates are set in whole penny amounts and are seasonally differentiated (i.e. there is a peak rate and an off-peak rate). Seasonal rate rounding was selected to generate revenues that were closest to the annual revenue requirement.

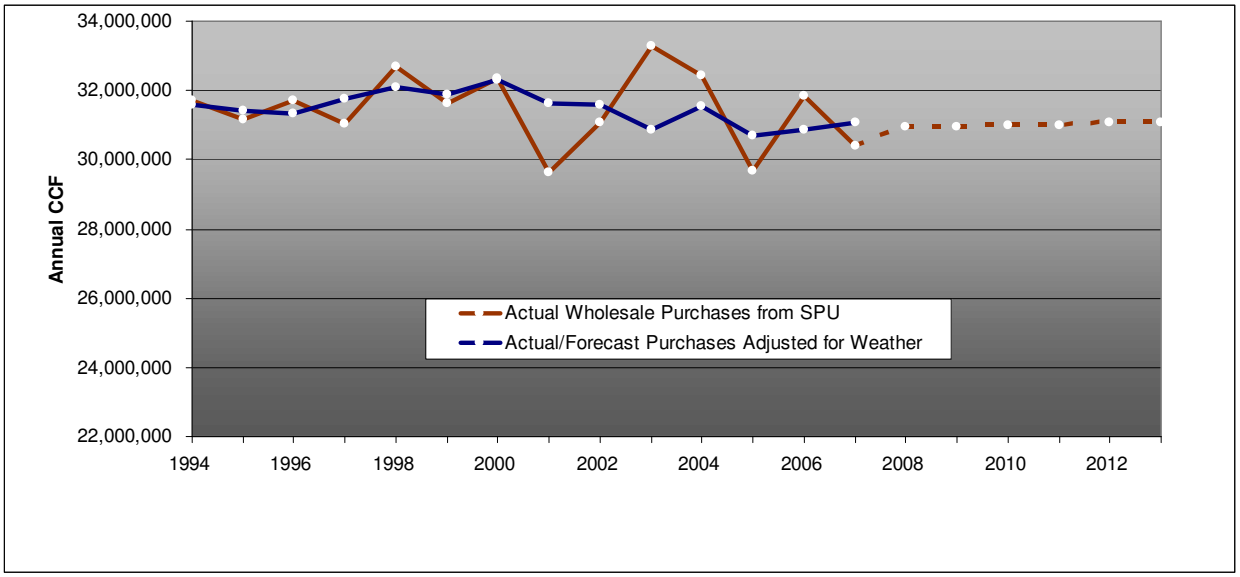
Seasonal Rate Differential
The existing seasonal rate differential (i.e., the ratio of the peak rate to the off-peak rate) of 1.5 has been maintained for 2009 - 2011.

Sales Volumes
Since the revenue generated by rates is dependent on the amount of water sold, the forecast of demand has an impact on rates. The forecast of demand used in this rate study is shown in the table, below:

	2008	2009	2010	2011
Total Purveyors				
Peak CCF	14,230,000	14,230,000	14,240,000	14,240,000
Off-Pk CCF	16,750,000	16,780,000	16,820,000	16,830,000
Total Base CCF	**30,980,000**	**31,010,000**	**31,060,000**	**31,070,000**
New Water CCF	6,915,000	6,933,000	6,968,000	6,973,000

The overall forecast of wholesale demand from SPU is a slight increase in consumption ranging from 0.1 percent to 0.2 percent each year. This continues the trend in weather adjusted purchases for 2005 to 2007. Prior to this time, wholesale consumption had been downward sloping. The graph below indicates wholesale water purchases from SPU since 1994.

Wholesale Water Purchases from SPU: 1994-2013



Between 1994 and 2000, annual wholesale water demand was relatively flat at around 32 million ccf, fluctuating up and down in response to summer weather. Voluntary curtailment in 2001 combined with a cold wet summer and declining employment caused wholesale purchases to plummet. Demand recovered somewhat in 2002 and surged to 33.3 million ccf in 2003 and 32.5 million ccf in 2004. However, wholesale demand adjusted for summer weather displays a different pattern – gradually rising through 2000 and then declining steadily until 2005, when demand began to increase slightly again.

The 1% Conservation Program is expected to continue offsetting the impact of population and employment growth on wholesale water demand while more than offsetting the effects of growth within Seattle. Total wholesale purchases from SPU are now projected to be approximately 31.0 million ccf

annually for 2007 through 2011. Using the short term demand forecast model for the direct service area, Seattle retail demand is forecast to decline from 28.7 million ccf in 2007 to 27.9 million ccf in 2011.

APPENDIX C: 2001 WHOLESALE CONTRACT RATE STUDY

Seattle Public Utilities
2009-2011 Wholesale Water Rate Study
Full and Partial Requirements Contracts

C1.1. Summary

Seattle proposes to adjust wholesale water rates beginning January 1, 2009 as shown below.

	2008		2009		2010		2011	
Rates per CCF	**Off-Peak**	**Peak**	**Off-Peak**	**Peak**	**Off-Peak**	**Peak**	**Off-Peak**	**Peak**
System Baseline Rates	$1.16	$1.72	$1.27	$1.89	$1.28	$1.89	$1.29	$1.91
Change from Prior Year:			9.5%	9.9%	0.8%	0.0%	0.8%	1.1%
Transition Discount:	-$0.12	-$0.12	-$0.13	-$0.12	-$0.13	-$0.12	-$0.13	-$0.12
Adjusted Wholesale Rate:	**$1.04**	**$1.60**	**$1.14**	**$1.77**	**$1.15**	**$1.77**	**$1.16**	**$1.79**
Change from Prior Year:			9.6%	10.6%	0.9%	0.0%	0.9%	1.1%
Interim Growth Charge:	$0.60		$0.60		$0.60		$0.60	
Sub-regional Surcharge Rates								
Southwest Sub-region:	$0.06		$0.04		$0.03		$0.05	
East Sub-region, Segment 3:	$0.10		$0.04		$0.05		$0.05	
East Sub-region, Segment 4:	$0.12		$0.12		$0.12		$0.07	
ERU Fee ($/ERU):	$713		$713		$713		$713	

Note - Rate Components may not sum to totals due to rounding. The Total Wholesale Rate is rounded to whole cents.

This document describes the calculation of rates for Full and Partial Requirements customers. It is organized to follow the steps involved in the rate study including the assumptions, allocating O&M and asset costs to develop the Regional Cost, allocating this Regional Cost between Block contracts and Full and Partial Requirements customers, incorporating true up adjustments, and designing rates.

This rate study also develops rates for the Southwest and East sub-regions. Wholesale customers in the SW sub-region include Highline, Water District 20, Water District 125, and Water District 45. Seattle, Mercer Island, and Bellevue (through Cascade) are members of the East sub-region

C1.2. Overall Assumptions

1. Inflation is assumed to be 3.5 percent through the period of the rate study.

2. There are no contract changes or developments that have a significant impact. For example, the effect of the North Bend revenue is excluded because it is unknown and minimal. The actual effect of any contract changes will be captured through the true up.

3. Seattle's average cost of debt is assumed at 4.7 percent, which is the rate calculated in the 2006 Purveyor Statements.

4. No costs have been assigned to the New Transmission cost pool because no new transmission infrastructure has been constructed since the implementation of the new contract.

5. A true up is performed each year to compare the prior year's actual revenues and actual costs of service. A running balance of the excess or deficit in revenues is maintained. This rate study sets rates to amortize the projected 2008 year-end true-up balance over the 2009-2011 rate period.

C1.3. Total Regional O&M Costs

Yearly operations costs for each cost pool (e.g. Existing Supply) are calculated by applying an index to a base amount. The index is developed from the cost of certain O&M activities as identified in the contract. The original base amount for each cost pool for 2001 was identified in the contract.

The starting point for this rate study was the 2006 base and index amounts developed during the 2006 true up. Final (e.g. audited) 2007 costs were not available, so 2007 year end costs as of January 16, 2008 were used. For 2008, the detailed O&M budget was not yet known, so the base was indexed up by the increase in the overall O&M budget over 2007 (5.8 percent). For 2009-2011, a general inflation rate of 3.5 percent was used.

O&M Cost Summary	2006	2007	2008	2009	2010	2011
Existing Supply						
Prior Year Base		23,176,228	23,993,329	25,380,450	26,268,766	27,188,173
Index		1.035	1.058	1.035	1.035	1.035
Current Year Operations Cost Base	23,176,228	23,993,329	25,380,450	26,268,766	27,188,173	28,139,759
Existing Transmission						
Prior Year Base		7,992,760	8,528,204	9,021,243	9,336,986	9,663,781
Index		1.067	1.058	1.035	1.035	1.035
Current Year Operations Cost Base	7,992,760	8,528,204	9,021,243	9,336,986	9,663,781	10,002,013
New Supply						
Prior Year Base		1,210,198	1,116,941	1,181,514	1,222,867	1,265,667
Index		0.923	1.058	1.035	1.035	1.035
Current Year Operations Cost Base	1,210,198	1,116,941	1,181,514	1,222,867	1,265,667	1,309,966

C1.4. Total Regional Capital Costs

Yearly capital costs for each cost pool (e.g. Existing Supply) are calculated on the utility basis for assets assigned to that cost pool. Under the utility basis, the annual cost of an asset is depreciation plus the Net Book Value of the asset multiplied by a return on assets. This calculation is much like a home mortgage. The assets to be included in each cost pool are identified in the contract. Administratively, there are three categories of assets to be included in the rate study cost allocation: existing assets, future assets (in-construction or planned), and special assets.

Existing Assets
The basis for existing assets was the asset schedule used in preparation of the 2006 Wholesale Statements. Depreciation and Net Book Value were calculated through 2013 and allocated to the appropriate cost pool.

In-Construction and Future Assets
Identification of future assets came from the 6-year Capital Improvement Plan for the Water Fund and the Water Fund portion of the Technology 6-year Capital Improvement Plan. These plans also list budgeted spending levels for 2007 and beyond. The SPU financial system provided life-to-date spending on these projects through year-end 2006.

For each project, an in-service year was determined – typically the last year of spending in the CIP budget. Exceptions were annual programs, such as Transmission Pipeline Rehabilitation, that are capitalized at the end of each year. Interest costs associated with assets in construction ("AFUDC") were calculated for assets through June of the year they are to be placed in service, and depreciation was calculated for each project starting with the year after the asset is placed in service. All of these assumptions are consistent with SPU's actual accounting practices.

Assets were assigned to cost pools per the lists in the New Contract Exhibits. In a few cases, the CIP item consists of smaller projects (such as the Cathodic Protection Program), some included in the wholesale rate base and some not. These assets were categorized where the majority of the costs will be incurred. When the projects are executed, they will be disaggregated for tracking and allocating actual costs.

Special Assets
There are several assets that receive special treatment for rate making/cost allocation purposes.

1. **Gains on the sale of land originally purchased for exchange within the Cedar River Watershed.**
   These gains are invested in the Habitat Conservation Plan (HCP) assets and amortized over the life of the HCP. This asset appears on the existing asset schedule.

2. **Interest paid during construction on the Tolt Filtration Plant.**
   Wholesale customers agreed to pay a portion of interest costs during construction of the Tolt Filtration Plant. These payments reduce the rate-based cost of the Tolt Filtration Plant now that construction is complete. This appears as a contributed asset on the existing asset schedule.

3. **Interest paid during construction on the Cedar Treatment Plant.**
   Wholesale customers agreed to pay a portion of the interest costs for the Cedar Treatment Plant during construction. These payments reduce the rate-based cost of the Cedar Treatment Plant now that construction is complete. This appears as a contributed asset on the existing asset schedule.

C1.5. Allocation of Total Regional Costs

The work above determines total regional costs, which are then allocated to wholesale customers. For cost allocation purposes, Seattle's retail service area is considered a wholesale customer of the water system.

Step 1 - Allocation to new contract type (Full, Partial, and Block)
Because only a portion of demand is under new contracts (full and partial requirements, block), new contract customers bear only a portion of the regional costs developed above. This first allocation is done

by the projected annual flows for Full and Partial contract holders plus the CWA and Northshore blocks as compared to total system flows. The block volume is used rather than projected consumption because CWA and Northshore are paying for a portion of system capacity. Approximately 96 percent of demand (including Seattle) is under the new contract, so new contract customers support approximately 96 percent of regional costs.

Step 2 - Allocation to Block Customers
Next, the block contract portions are removed from the new contract amount identified above.

Cascade Water Alliance (CWA) has a declining block contract with Seattle rather than full or partial requirements contract. CWA shares in the Regional Existing Supply and Existing Transmission cost pools but not New Supply or New Transmission. The allocation to Cascade is done according to the CWA contract; CWA pays 18.1 percent of the regional existing supply and transmission costs. This allocation is 102 percent times the CWA block volume (30.3 MGD) divided by the system firm yield (171 MGD).

Northshore has a fixed block contract with Seattle. Northshore shares in the Regional Existing Supply and Existing Transmission cost pools, and the conservation related portions of the New Supply and Facilities Charge cost pools. The allocation of Existing Supply and Existing Transmission is 5.1 percent, which is 102 percent of Northshore's block volume (8.55 MGD) divided by the system firm yield (171 MGD). Northshore's allocation of conservation is 6.2 percent, which is 102 percent of Northshore's block volume (8.55 MGD) divided by the system firm yield minus the CWA block (171 MGD - 30.3 MGD). CWA's block is not included in conservation calculations since CWA does not participate in SPU's regional conservation programs.

Step 3 - Remainder to Full and Partial Requirements Contract Holders
Full and Partial Requirements customers pay the remaining costs in the new contract cost pool. The results of this allocation of regional costs are shown below:

	2008	2009	2010	2011
Total Regional Cost	$91,131,904	$92,329,404	$92,368,028	$92,805,020
Percent Demand under New Contract	96.5%	96.5%	96.4%	96.4%
System Cost under New Contract	$87,928,328	$89,058,566	$89,059,844	$89,459,032
Cascade Portion	$16,257,350	$16,466,308	$16,465,553	$16,536,527
Northshore Portion	4,834,973	4,927,554	4,964,617	5,008,133
Remainder to Full and Partial Contract holders, incl. Seattle	**$66,836,005**	**$67,664,704**	**$67,629,675**	**$67,914,372**

Because the allocation to block customers is by block size rather than by projected flows, there is an effect on the remaining costs to be shared among Full and Partial Contract holders. This effect has to do with how the system excess capacity is shared. Because CWA is using almost all of their block, they are paying for less "excess capacity" than they would be as a Full and Partial Requirements customer, and the amount of excess remaining to Full and Partial Requirements customers is higher. Conversely, Northshore currently has a higher excess rate than the system average, which lowers the amount remaining to Full and Partial Requirements customers.

C1.6. True Up Adjustments

Although cost allocation is done jointly for Full and Partial Requirements Customers, CWA, and Northshore, the true ups and resulting excesses/deficiencies for the three groups will be maintained

separately. As such, Seattle (rather than the other wholesale customers) funds the Cascade and Northshore excesses/deficiencies.

This rate study takes into account the actual Full and Partial Requirements Contracts true up balance from the 2006 true up and the current forecast for the 2007 and 2008 true ups. Rates are set to amortize these balances plus interest over the period 2009-2011.

C1.7. Cost Allocation Summary

The following schedule presents the summary of rate-based (non Facilities Charge based) contract costs for 2006-2013:

	2006 Actual	2007 Projected	2008 Projected	2009 Projected	2010 Projected	2011 Projected	2012 Projected	2013 Projected
Existing Supply Cost Pool								
Operations	26,250,435	23,993,329	25,380,450	26,268,766	27,188,173	28,139,759	29,124,651	30,144,013
Asset Cost Recovery	33,236,987	35,742,740	36,899,459	37,004,189	35,974,547	35,312,487	34,509,604	36,316,735
Total:	59,487,422	59,736,069	62,279,910	63,272,955	63,162,720	63,452,246	63,634,255	66,460,749
New Supply Cost Pool								
Operations	1,210,198	1,116,941	1,181,514	1,222,867	1,265,667	1,309,966	1,355,814	1,403,268
Asset Cost Recovery		-	-	-	-	-	-	-
Total:	1,210,198	1,116,941	1,181,514	1,222,867	1,265,667	1,309,966	1,355,814	1,403,268
Existing Transmission Cost Pool								
Operations	9,017,455	8,528,204	9,021,243	9,336,986	9,663,781	10,002,013	10,352,084	10,714,407
Asset Cost Recovery	18,449,204	18,610,285	18,649,238	18,496,595	18,275,860	18,040,794	21,867,516	22,575,028
Total:	27,466,659	27,138,488	27,670,481	27,833,581	27,939,641	28,042,808	32,219,600	33,289,435
New Transmission Cost Pool								
Operations	-	-	-	-	-	-	-	-
Asset Cost Recovery	-	-	-	-	-	-	-	-
Total:	-	-	-	-	-	-	-	-
Grand Total Regional Cost:	**88,164,279**	**87,991,497**	**91,131,904**	**92,329,404**	**92,368,028**	**92,805,020**	**97,209,670**	**101,153,452**
Flow Under New Contract:	96.2%	96.5%	96.5%	96.5%	96.4%	96.4%	96.4%	96.4%
New Contract Cost:	84,842,367	84,910,199	87,928,328	89,058,566	89,059,844	89,459,032	93,669,852	97,470,576
Less Cascade & Northshore Costs:	20,225,476	20,344,962	21,092,322	21,393,861	21,430,170	21,544,660	22,552,374	23,453,165
Full and Partial Requirements Cost:	64,616,891	64,565,237	66,836,005	67,664,704	67,629,675	67,914,372	71,117,478	74,017,411
True Up Adjustment	-			(30,393)	0			
Annual Revenue Requirement:	**64,616,891**	**64,565,237**	**66,836,005**	**67,634,311**	**67,629,675**	**67,914,372**	**71,117,478**	**74,017,411**
True Up Adjustments								
Net Excess (Deficiency):	6,596,622	4,398,715	(193,210)	(1,364)	0	0	0	0
Interest:	419,850	329,774	222,239	1,364	0	0	0	0

C1.8. Rate Making

The essence of rate making is to determine the unit price by dividing the revenues to be collected by the units of service. Items such as the seasonal rate differential make this a bit more complicated and are discussed below.

Treatment of Rate Rounding

Water rates are set in whole penny amounts and are seasonally differentiated (i.e. there is a peak rate and an off-peak rate). For purposes of this rate study, only the aggregate rate charged to a wholesale customer was constrained to the nearest cent. New contract customers technically have separate rates for Existing

Supply, Existing Transmission, New Supply, and New Transmission, but only the sum of these components appears on customer bills. It is this total rate that is rounded to the nearest cent. Seasonal rate rounding was selected to generate revenues that were closest to the annual revenue requirement.

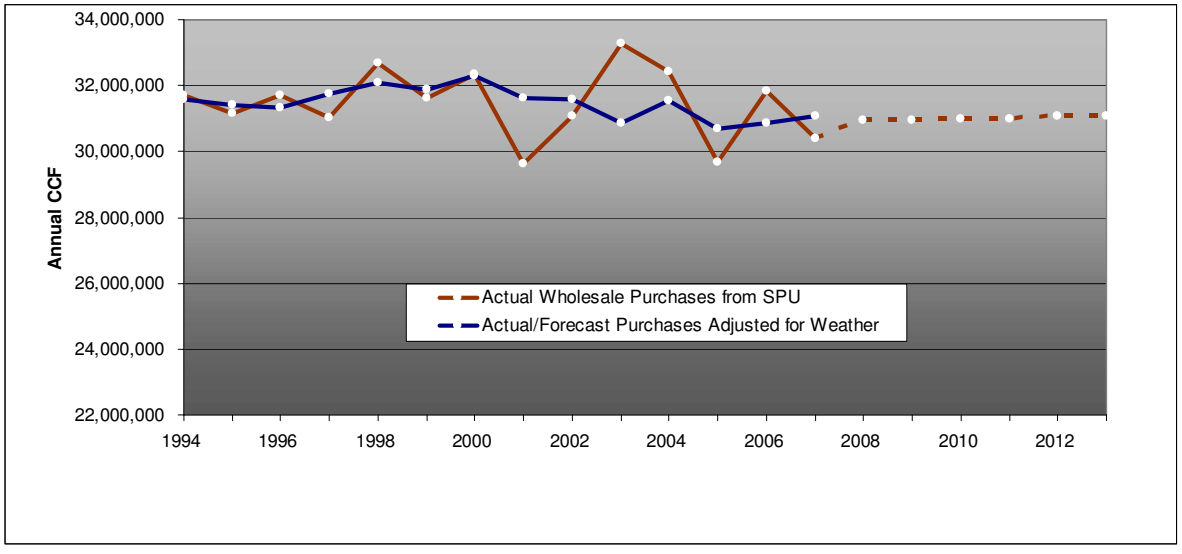
Demand Volumes

Since the revenue generated by rates is dependent on the amount of water sold, the forecast of demand has an impact on rates. The forecast of demand used in this rate study is shown in the table, below:

	2008	2009	2010	2011
Old Contracts				
Peak CCF	1,070,000	1,070,000	1,080,000	1,080,000
Off-Pk CCF	1,250,000	1,260,000	1,270,000	1,280,000
Total Base CCF	2,320,000	2,330,000	2,350,000	2,360,000
New Contracts				
Peak CCF	5,800,000	5,800,000	5,800,000	5,800,000
Off-Pk CCF	7,040,000	7,040,000	7,050,000	7,060,000
Total Base CCF	12,840,000	12,840,000	12,850,000	12,860,000
CWA				
Annual Block CCF	14,785,428	14,785,428	14,785,428	14,785,428
Northshore				
Annual Block CCF	4,172,126	4,172,126	4,172,126	4,172,126
Seattle				
Peak Retail CCF	11,150,000	11,000,000	10,880,000	10,770,000
Off-Pk Retail CCF	17,350,000	17,260,000	17,190,000	17,120,000
Total Retail CCF	28,500,000	28,260,000	28,070,000	27,890,000
Non-revenue CCF	3,354,181	3,358,781	3,361,981	3,364,981
Seattle Wholesale CCF	31,854,181	31,618,781	31,431,981	31,254,981

The overall forecast of wholesale demand from SPU is a slight increase in consumption ranging from 0.1 percent to 0.2 percent each year. This continues the trend in weather adjusted purchases for 2005 to 2007. Prior to this time, wholesale consumption had been downward sloping. The graph below indicates wholesale water purchases from SPU since 1994.

Wholesale Water Purchases from SPU: 1994-2013



Between 1994 and 2000, annual wholesale water demand was relatively flat at around 32 million ccf, fluctuating up and down in response to summer weather. Voluntary curtailment in 2001 combined with a cold wet summer and declining employment caused wholesale purchases to plummet. Demand recovered somewhat in 2002 and surged to 33.3 million ccf in 2003 and 32.5 million ccf in 2004. However, wholesale demand adjusted for summer weather displays a different pattern – gradually rising through 2000 and then declining steadily until 2005, when demand began to increase slightly again.

The 1% Conservation Program is expected to continue offsetting the impact of population and employment growth on wholesale water demand while more than offsetting the effects of growth within Seattle. Total wholesale purchases from SPU are now projected to be approximately 31.0 million ccf annually for 2007 through 2011. Using the short term demand forecast model for the direct service area, Seattle retail demand is forecast to decline from 28.7 million ccf in 2007 to 27.9 million ccf in 2011.

Transition Discount
Until January 1, 2012, wholesale customers pay a $0.60 per CCF "Interim Growth Surcharge" on consumption above 1982 levels (i.e. the "Old Water Allowance"). The revenue from this surcharge discounts the base rate charged to wholesale customers (but not Seattle) by not more than $0.16 per ccf. This rate study found that interim growth surcharge revenues were sufficient to fund the discount at $0.125 per ccf in 2006 through 2011 (unrounded values are used in the calculation to give wholesale customers the benefit of every fraction of a cent of interim growth charge revenue). This discount applies to both peak and off peak rates. Seattle does not receive this discount to its wholesale rates.

The proceeds of the $0.60 interim growth surcharge are used to fund the discount. In the past, this discount increased when customers with a higher than average percentage of New Water joined the contract because they paid higher surcharge revenues. Because there have not been any changes to the 2001 contract customers since the last rate study, the amount of the discount has remained flat.

Seasonal Rate Differential
Seattle chose to maintain the existing ratio of peak rate to off-peak rate of 1.5. The un-discounted base rates are set so that the seasonal rate differential of the discounted base rates would be about 1.5, taking into account accurately recovering the total revenue requirement.

C1.9. Southwest Sub-Region

Calculating rates for the Southwest Sub-region uses data from the main rate study, but is done as a separate step. The Southwest Sub-region is comprised of six "Facilities" as defined in the contract. For each Facility, total O&M and utility basis capital costs are determined. Then, for each of the six facilities, the percent used by all wholesale customers (as opposed to Seattle) is determined, and that percent is applied to the O&M and asset cost for the corresponding facility. These are combined to form the Southwest Sub-region cost pool.

Capital Cost
During the main rate study, certain existing assets and future/planned assets were identified as Sub-regional. The utility basis cost was calculated using the same method as for the regional cost pools.

O&M
O&M cost tracking for sub-regions was done a little differently than for the regional cost pools. Location codes are pulled from the financial system, rather than using budgeted spending per activity code. For each Facility, the O&M costs from the 2006 true up were carried forward.

Setting Rates

The procedures above produce a total Sub-regional cost for all wholesale customers served by the sub-region, regardless of contract type. This total cost was divided by the total flow for all wholesale customers in the sub-region, regardless of the exact location of their wholesale meter, to produce a rate per ccf. During the true up stage, "as-if" revenues will be calculated for wholesale customers still under the old contract type.

There have been no significant changes to the Southwest subregional infrastructure since the last rate study. Rates are changing from the 2008 level because the large negative balance in the Statement of Revenues less Service Costs (aka the "true up balance") will be paid off, allowing rates to drop somewhat.

Southwest Sub-Region Facilities	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
585 Zone Facilities								
Operations Costs	941	941	941	941	941	941	941	941
Asset Recovery Costs	359,076	353,980	348,883	343,787	466,836	500,482	492,823	485,166
Total	360,017	354,921	349,824	344,728	467,777	501,423	493,764	486,107
Allocated at 22%	71,122	77,373	76,262	75,151	101,975	109,310	107,641	105,971
West Seattle Reservoir								
Operations Costs	495	495	495	495	495	495	495	495
Asset Recovery Costs	514,739	554,805	542,367	529,928	517,489	3,127,644	3,707,404	3,655,822
Total	515,233	555,300	542,861	530,423	517,984	3,128,139	3,707,899	3,656,317
Allocated at 3%	26,387	17,214	16,829	16,443	16,057	96,972	114,945	113,346
West Seattle Pipeline								
Operations Costs	0	0	0	0	0	0	0	0
Asset Recovery Costs	160,834	173,353	169,890	166,426	162,962	159,498	156,035	152,571
Total	160,834	173,353	169,890	166,426	162,962	159,498	156,035	152,571
Allocated at 12%	38,777	20,629	20,217	19,805	19,392	18,980	18,568	18,156
Des Moines Way Pipeline								
Operations Costs	41	41	41	41	41	41	41	41
Asset Recovery Costs	12,532	27,771	32,380	31,714	30,947	30,180	29,413	28,647
Total	12,573	27,812	32,422	31,755	30,988	30,221	29,455	28,688
Allocated at 100%	12,573	27,812	32,422	31,755	30,988	30,221	29,455	28,688
Military Road Feeder								
Operations Costs	0	0	0	0	0	0	0	0
Asset Recovery Costs	650	615	581	366	0	0	0	0
Total	650	615	581	366	0	0	0	0
Allocated at 100%	650	615	581	366	0	0	0	0
East Marginal Way Feeder								
Operations Costs	0	0	0	0	0	0	0	0
Asset Recovery Costs	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Allocated at 100%	0	0	0	0	0	0	0	0
Total Cost Allocated to SW Sub-region	149,509	143,643	146,309	143,519	168,413	255,484	270,608	266,161
True Up Balance Amortization				87,231				
Sub-regional Revenue Requirement	149,509	143,643	146,309	230,750	168,413	255,484	270,608	266,161
Southwest Sub-Regional Rates:	**$0.04**	**$0.05**	**$0.06**	**$0.04**	**$0.03**	**$0.05**	**$0.05**	**$0.05**
Rate Increase				-30%	-27%	52%	6%	-2%
SW True Up Adjustment								
Net Excess (Deficit)	(353,764)	(238,778)	(71,272)	3,916	0	0	0	0
Interest	(17,646)	(17,456)	(12,043)	(3,916)	0	0	0	0

C1.10. East Sub-Region

The East sub-region consists of four segments of the Mercer Island Pipeline, each serving different combinations of wholesale customers. Because the segments are in series (each segment feeds the next one) cost allocation is a sequential calculation based on flows.

Capital Cost and O&M

The utility basis cost of each segment of the existing pipeline was determined using length to divide the total cost. No CIP items were identified that affect the Mercer Island Pipeline. For each segment, the 2006 true up O&M costs were carried forward.

Setting Rates

Consistent with the contract, a rate was calculated for each segment of the pipeline and the rate will be applied to flow through wholesale meters on that segment. These rates and the revenues they generate will be tracked and trued up separately for each segment. As a result, Mercer Island, who has meters on two different segments, will experience two different Sub-regional surcharges on their monthly bills.

Segment 3 rates are dropping significantly while segment 4 rates remain the same. This uneven change in rates between the two segments is to be expected due to the sensitivity of the cost allocation to flows through each meter. Because, as mentioned above, the two segments are trued up independently, costs will equal revenues for each segment in the long run.

East Sub-Region Facilities	2006	2007	2008	2009	2010	2011	2012	2013
Segment 1								
Cost of Segment 1	17,718	17,132	16,734	16,337	15,939	15,542	15,145	14,747
Allocated to meters on Segment 1 (Bellevue)	2,059	2,111	2,062	2,013	1,964	1,915	1,866	1,817
Allocated Downstream	15,659	15,021	14,672	14,324	13,975	13,627	13,279	12,930
Block payment for Segment 1	**2,059**	**2,111**	**2,062**	**2,013**	**1,964**	**1,915**	**1,866**	**1,817**
Segment 2								
Cost of Segment 2	24,989	23,602	23,042	22,481	21,921	21,360	20,800	20,239
Allocation from Segment 1	15,659	15,021	14,672	14,324	13,975	13,627	13,279	12,930
Total Cost of Segment 2	40,648	38,623	37,714	36,805	35,896	34,987	34,078	33,169
Allocated to meters on Segment 2 (Bellevue)	8,710	8,085	7,895	7,704	7,514	7,324	7,134	6,943
Allocated Downstream	31,938	30,538	29,819	29,101	28,382	27,663	26,945	26,226
Block payment for Segment 2	**8,710**	**8,085**	**7,895**	**7,704**	**7,514**	**7,324**	**7,134**	**6,943**
Segment 3								
Cost of Segment 3	33,126	31,288	30,545	29,802	29,059	28,316	27,573	26,830
Allocation from Segment 2	31,938	30,538	29,819	29,101	28,382	27,663	26,945	26,226
Total Cost of Segment 3	65,064	61,826	60,365	58,903	57,441	55,979	54,518	53,056
Allocated Downstream	52,756	46,517	45,417	44,317	43,217	42,117	41,018	39,918
Allocated to meters on Segment 3 (Seattle & Mercer Island)	12,308	15,310	14,948	14,586	14,224	13,862	13,500	13,138
Segment 3 True Up Balance Amortization				(3,800)	(122)			
$/CCF for Segment 3	**$0.07**	**$0.09**	**$0.10**	**$0.04**	**$0.05**	**$0.05**	**$0.05**	**$0.05**
Segment 4								
Cost of Segment 4	17,545	16,571	16,177	15,784	15,390	14,997	14,603	14,210
Allocation from Segment 3	52,756	46,517	45,417	44,317	43,217	42,117	41,018	39,918
Total Cost of Segment 4	70,301	63,087	61,594	60,101	58,607	57,114	55,621	54,127
Allocated to meters on Segment 4 (Mercer Island)	70,301	63,087	61,594	60,101	58,607	57,114	55,621	54,127
Segment 4 True Up Balance Amortization				$40,000	$47,686			
$/CCF for Segment 4	**$0.08**	**$0.11**	**$0.12**	**$0.12**	**$0.12**	**$0.07**	**$0.07**	**$0.06**

Notes: Bellevue is part of Cascade, so their "rate" is a block payment
Numbers may not sum due to rounding

C1.11. ERU Fee

The current Facilities Charge rate of $713/ERU became effective in early 2003. This charge recovers the cost of durable investments made as part of the 1% conservation plan. The rate will not be adjusted until a new supply facility is added.

APPENDIX D: INFORMATIONAL TABLES

D1.1. Residential Rate History

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	1/1/04	1/1/05	6/1/06	1/1/07	1/1/08
Residential - Inside Seattle										
Commodity Rate (per ccf)										
Off-Peak	$2.16	$2.16	$2.33	$2.33	$2.35	$2.53	$2.53	$2.53	$2.53	$2.62
Peak 1st Block	$2.16	$2.16	$2.36	$2.36	$2.75	$2.88	$2.88	$2.88	$2.88	$2.88
Peak 2nd Block	$2.85	$2.85	$3.07	$3.07	$3.20	$3.35	$3.35	$3.35	$3.35	$3.35
Peak 3rd Block	N/A	$11.40	$11.40	$8.55	$8.55	$8.55	$8.55	$8.55	$8.55	$8.55
Meter Charge ($s/mtr/mo)										
3/4 inch	$3.90	$3.90	$4.10	$4.10	$6.35	$6.90	$6.90	$7.45	$8.05	$9.40
1 inch	$6.30	$6.30	$6.70	$6.70	$8.35	$8.75	$8.75	$8.30	$8.60	$10.00
1 1/2 inch	$12.20	$12.20	$12.90	$12.90	$14.00	$14.30	$14.30	$13.50	$13.60	$14.50
2 inch	$19.30	$19.30	$20.50	$20.50	$22.00	$22.00	$22.00	$20.70	$21.00	$21.70
3 inch	$37.80	$37.80	$40.10	$40.10	$42.00	$42.00	$42.00	$43.90	$47.30	$55.30
4 inch	$59.10	$59.10	$62.60	$62.60	$65.00	$65.00	$65.00	$73.10	$79.00	$92.20
Utility Credit										
Fixed Credit (per month)	$8.77	$8.77	$9.02	$9.02	$11.10	$11.90	$11.90	$12.20	$12.50	$13.35
Commodity Rate (per ccf)										
Off-Peak	$1.08	$1.08	$1.17	$1.17	$1.18	$1.27	$1.27	$1.27	$1.27	$1.31
Peak 1st Block	$1.08	$1.08	$1.18	$1.18	$1.38	$1.44	$1.44	$1.44	$1.44	$1.44
Peak 2nd Block	$1.43	$1.43	$1.54	$1.54	$1.60	$1.68	$1.68	$1.68	$1.68	$1.68
Peak 3rd Block	N/A	$5.70	$5.70	$4.28	$4.28	$4.28	$4.28	$4.28	$4.28	$4.28
Meter Charges (Discount)	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Eligible Projects										
Commodity Rate (per ccf)										
Off-Peak	$2.31	$2.31	$2.36	$2.36	$2.81	$3.16	$3.16	$4.40	$4.40	$4.49
Peak 1st Block	$3.08	$3.08	$3.25	$3.25	$3.67	$3.80	$3.80	$4.75	$4.75	$4.75
Peak 2nd Block	$3.77	$3.77	$3.99	$3.99	$4.12	$4.27	$4.27	$5.22	$5.22	$5.22
Peak 3rd Block	N/A	$11.40	$11.40	$8.55	$8.55	$8.55	$8.55	$8.55	$8.55	$8.55
Meter Charges (see above)										

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	1/1/04	1/1/05	6/1/06	1/1/07	1/1/08
Residential - Outside Seattle										
Commodity Rate (per ccf)										
Off-Peak	$2.46	$2.46	$2.66	$2.66	$2.68	$2.88	$2.88	$2.88	$2.88	$2.99
Peak 1st Block	$2.46	$2.46	$2.66	$2.66	$3.14	$3.28	$3.28	$3.28	$3.28	$3.28
Peak 2nd Block	$3.25	$3.25	$3.50	$3.50	$3.65	$3.82	$3.82	$3.82	$3.82	$3.82
Peak 3rd Block	N/A	$13.00	$13.00	$9.75	$9.75	$9.75	$9.75	$9.75	$9.75	$9.75
Meter Charge ($s/mtr/mo)										
3/4 inch	$4.40	$4.40	$4.70	$4.70	$7.20	$7.90	$7.90	$8.50	$9.20	$10.70
1 inch	$7.20	$7.20	$7.60	$7.60	$9.50	$10.00	$10.00	$9.50	$9.80	$11.40
1 1/2 inch	$13.90	$13.90	$14.70	$14.70	$16.00	$16.30	$16.30	$15.40	$15.50	$16.50
2 inch	$22.00	$22.00	$23.40	$23.40	$25.10	$25.10	$25.10	$23.60	$23.90	$24.70
3 inch	$43.10	$43.10	$45.70	$45.70	$48.00	$48.00	$48.00	$50.00	$53.90	$63.00
4 inch	$67.40	$67.40	$71.40	$71.40	$74.00	$74.00	$74.00	$83.30	$90.10	$105.10
Utility Credit										
Fixed Credit (per month)	$8.77	$8.77	$9.02	$9.02	$11.10	$11.90	$11.90	$12.20	$12.50	$13.35
Commodity Rate (per ccf)										
Off-Peak	$1.23	$1.23	$1.33	$1.33	$1.34	$1.44	$1.44	$1.44	$1.44	$1.50
Peak 1st Block	$1.23	$1.23	$1.33	$1.33	$1.57	$1.64	$1.64	$1.64	$1.64	$1.64
Peak 2nd Block	$1.63	$1.63	$1.75	$1.75	$1.83	$1.91	$1.91	$1.91	$1.91	$1.91
Peak 3rd Block	N/A	$6.50	$6.50	$4.88	$4.88	$4.88	$4.88	$4.88	$4.88	$4.88
Meter Charges (Discount)	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	1/1/04	1/1/05	6/1/06	1/1/07	1/1/08
Residential - Shoreline										
Commodity Rate (per ccf)										
Off-Peak	$2.46	$2.46	$2.66	$2.66	$2.68	$2.88	$2.88	$3.07	$3.07	$3.18
Peak 1st Block	$2.46	$2.46	$2.66	$2.66	$3.14	$3.28	$3.28	$3.49	$3.49	$3.49
Peak 2nd Block	$3.25	$3.25	$3.50	$3.50	$3.65	$3.82	$3.82	$4.06	$4.06	$4.06
Peak 3rd Block	N/A	$13.00	$13.00	$9.75	$9.75	$9.75	$9.75	$10.37	$10.37	$10.37
Franchise Charge	$1.35	$1.35	$1.35	$1.35	$1.35	$1.35	$1.75	N/A	N/A	N/A
Meter Charge ($s/mtr/mo)										
3/4 inch	$4.40	$4.40	$4.70	$4.70	$7.20	$7.90	$7.90	$9.00	$9.80	$11.40
1 inch	$7.20	$7.20	$7.60	$7.60	$9.50	$10.00	$10.00	$10.10	$10.40	$12.10
1 1/2 inch	$13.90	$13.90	$14.70	$14.70	$16.00	$16.30	$16.30	$16.40	$16.50	$17.60
2 inch	$22.00	$22.00	$23.40	$23.40	$25.10	$25.10	$25.10	$25.10	$25.50	$26.30
3 inch	$43.10	$43.10	$45.70	$45.70	$48.00	$48.00	$48.00	$53.20	$57.40	$67.10
4 inch	$67.40	$67.40	$71.40	$71.40	$74.00	$74.00	$74.00	$88.70	$95.80	$112.00
Utility Credit										
Fixed Credit (per month)	$8.77	$8.77	$9.02	$9.02	$11.10	$11.90	$11.90	$12.20	$12.50	$13.35
Commodity Rate (per ccf)										
Off-Peak	$1.23	$1.23	$1.33	$1.33	$1.34	$1.44	$1.44	$1.54	$1.54	$1.59
Peak 1st Block	$1.23	$1.23	$1.33	$1.33	$1.57	$1.64	$1.64	$1.75	$1.75	$1.75
Peak 2nd Block	$1.63	$1.63	$1.75	$1.75	$1.83	$1.91	$1.91	$2.03	$2.03	$2.03
Peak 3rd Block	N/A	$6.50	$6.50	$4.88	$4.88	$4.88	$4.88	$5.19	$5.19	$5.19
Meter Charges (Discount)	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Master Metered Residential Development										
Commodity Rate (per ccf)										
Off-Peak	$1.58	$1.58	$1.64	$1.64	$2.15	$2.55	$2.55	$3.07	$3.07	$3.18
Peak 1st Block	$2.46	$2.46	$2.66	$2.66	$3.14	$3.28	$3.28	$3.49	$3.49	$3.49
Peak 2nd Block	$3.25	$3.25	$3.50	$3.50	$3.65	$3.82	$3.82	$4.06	$4.06	$4.06
Peak 3rd Block	N/A	$13.00	$13.00	$9.75	$9.75	$9.75	$9.75	$10.37	$10.37	$10.37
Meter Charges (See above)										
Franchise Charge	$135.13	$135.13	$135.13	$135.13	$135.13	$135.13	$1,093.75	N/A	N/A	N/A

D1.2. General Service Rate History

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	1/1/04	1/1/05	6/1/06	1/1/07	1/1/08
General Service - Inside Seattle										
Commodity Rate (per ccf)										
Off-Peak	$1.24	$1.24	$1.29	$1.29	$1.69	$2.00	$2.00	$2.33	$2.29	$2.62
Peak	$2.25	$2.25	$2.34	$2.34	$2.75	$3.35	$3.35	$3.35	$3.35	$3.35
Meter Charge ($s/mtr/mo)										
3/4 inch	$3.90	$3.90	$4.10	$4.10	$6.35	$6.90	$6.90	$7.45	$8.05	$9.40
1 inch	$6.30	$6.30	$6.70	$6.70	$8.35	$8.75	$8.75	$8.30	$8.60	$10.00
1 1/2 inch	$12.20	$12.20	$12.90	$12.90	$14.00	$14.30	$14.30	$13.50	$13.60	$14.50
2 inch	$19.30	$19.30	$20.50	$20.50	$22.00	$22.00	$22.00	$20.70	$21.00	$21.70
3 inch	$37.80	$37.80	$40.10	$40.10	$42.00	$42.00	$42.00	$43.90	$47.30	$55.30
4 inch	$59.10	$59.10	$62.60	$62.60	$65.00	$65.00	$65.00	$73.10	$79.00	$92.20
6 inch	$118.20	$118.20	$125.30	$125.30	$127.00	$127.00	$127.00	$119.80	$121.00	$125.00
8 inch	$189.10	$189.10	$200.40	$200.40	$202.00	$202.00	$202.00	$190.00	$192.00	$199.00
10 inch	$283.60	$283.60	$300.60	$300.60	$302.00	$302.00	$302.00	$285.00	$288.00	$297.00
12 inch	$401.80	$401.80	$425.90	$425.90	$428.00	$428.00	$428.00	$402.00	$402.00	$402.00
16 inch	$673.60	$673.60	$714.00	$714.00	$716.00	$716.00	$716.00	$477.00	$477.00	$477.00
20 inch	$980.90	$980.90	$1,039.80	$1,039.80	$1,042.00	$1,042.00	$1,042.00	$614.00	$614.00	$614.00
24 inch	$1,571.80	$1,571.80	$1,666.10	$1,666.10	$1,668.00	$1,668.00	$1,668.00	$771.00	$771.00	$771.00
Utility Credit - Inside & Outside (Fixed Credit per month)										
Commercial (Multifamily)	$3.47	$3.47	$3.57	$3.57	$4.50	$5.30	$5.30	$5.70	$5.65	$6.10

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	1/1/04	1/1/05	6/1/06	1/1/07	1/1/08
General Service - Outside Seattle										
Commodity Rate (per ccf)										
Off-Peak	$1.41	$1.41	$1.47	$1.47	$1.93	$2.28	$2.28	$2.66	$2.61	$2.99
Peak	$2.57	$2.57	$2.67	$2.67	$3.14	$3.82	$3.82	$3.82	$3.82	$3.82
Meter Charge ($s/mtr/mo)										
3/4 inch	$4.40	$4.40	$4.70	$4.70	$7.20	$7.90	$7.90	$8.50	$9.20	$10.70
1 inch	$7.20	$7.20	$7.60	$7.60	$9.50	$10.00	$10.00	$9.50	$9.80	$11.40
1 1/2 inch	$13.90	$13.90	$14.70	$14.70	$16.00	$16.30	$16.30	$15.40	$15.50	$16.50
2 inch	$22.00	$22.00	$23.40	$23.40	$25.10	$25.10	$25.10	$23.60	$23.90	$24.70
3 inch	$43.10	$43.10	$45.70	$45.70	$48.00	$48.00	$48.00	$50.00	$53.90	$63.00
4 inch	$67.40	$67.40	$71.40	$71.40	$74.00	$74.00	$74.00	$83.30	$90.10	$105.10
6 inch	$134.70	$134.70	$142.80	$142.80	$145.00	$145.00	$145.00	$137.00	$138.00	$143.00
8 inch	$215.60	$215.60	$228.50	$228.50	$230.00	$230.00	$230.00	$217.00	$219.00	$227.00
10 inch	$323.30	$323.30	$342.70	$342.70	$344.00	$344.00	$344.00	$325.00	$328.00	$339.00
12 inch	$458.10	$458.10	$485.50	$485.50	$488.00	$488.00	$488.00	$458.00	$458.00	$458.00
16 inch	$797.90	$797.90	$814.00	$814.00	$816.00	$816.00	$816.00	$544.00	$544.00	$544.00
20 inch	$1,118.20	$1,118.20	$1,185.40	$1,185.40	$1,188.00	$1,188.00	$1,188.00	$700.00	$700.00	$700.00
24 inch	$1,791.90	$1,791.90	$1,899.40	$1,899.40	$1,902.00	$1,902.00	$1,902.00	$879.00	$879.00	$879.00
Utility Credit - Inside & Outside (Fixed Credit per month)										
Commercial (Multifamily)	$3.47	$3.47	$3.57	$3.57	$4.50	$5.30	$5.30	$5.70	$5.65	$6.10

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	1/1/04	1/1/05	6/1/06	1/1/07	1/1/08
General Service - Shoreline										
Commodity Rate (per ccf)										
Off-Peak	$1.41	$1.41	$1.47	$1.47	$1.93	$2.28	$2.28	$2.83	$2.78	$3.18
Peak	$2.57	$2.57	$2.67	$2.67	$3.14	$3.82	$3.82	$4.06	$4.06	$4.06
Franchise Charge	$13.51	$13.51	$13.51	$13.51	$13.51	$13.51	$13.60	N/A	N/A	N/A
Meter Charge ($s/mtr/mo)										
3/4 inch	$4.40	$4.40	$4.70	$4.70	$7.20	$7.90	$7.90	$9.00	$9.80	$11.40
1 inch	$7.20	$7.20	$7.60	$7.60	$9.50	$10.00	$10.00	$1.10	$10.40	$12.10
1 1/2 inch	$13.90	$13.90	$14.70	$14.70	$16.00	$16.30	$16.30	$16.40	$16.50	$17.60
2 inch	$22.00	$22.00	$23.40	$23.40	$25.10	$25.10	$25.10	$25.10	$25.50	$26.30
3 inch	$43.10	$43.10	$45.70	$45.70	$48.00	$48.00	$48.00	$53.20	$57.40	$67.10
4 inch	$67.40	$67.40	$71.40	$71.40	$74.00	$74.00	$74.00	$88.70	$95.80	$112.00
6 inch	$134.70	$134.70	$142.80	$142.80	$145.00	$145.00	$145.00	$145.00	$147.00	$152.00
8 inch	$215.60	$215.60	$228.50	$228.50	$230.00	$230.00	$230.00	$230.00	$233.00	$241.00
10 inch	$323.30	$323.30	$342.70	$342.70	$344.00	$344.00	$344.00	$346.00	$349.00	$360.00
12 inch	$458.10	$458.10	$485.50	$485.50	$488.00	$488.00	$488.00	$488.00	$488.00	$488.00
16 inch	$797.90	$797.90	$814.00	$814.00	$816.00	$816.00	$816.00	$579.00	$579.00	$579.00
20 inch	$1,118.20	$1,118.20	$1,185.40	$1,185.40	$1,188.00	$1,188.00	$1,188.00	$745.00	$745.00	$745.00
24 inch	$1,791.90	$1,791.90	$1,899.40	$1,899.40	$1,902.00	$1,902.00	$1,902.00	$935.00	$935.00	$935.00
Utility Credit - Inside & Outside (Fixed Credit per month)										
Commercial (Multifamily)	$3.47	$3.47	$3.57	$3.57	$4.50	$5.30	$5.30	$5.70	$5.65	$6.10

D1.3. Wholesale Rate History

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	3/7/03	1/1/04	1/1/05	1/1/06	6/1/06	1/1/07	1/1/08
1982 Contract												
Commodity Rate (per ccf)												
Off-Peak	$0.77	$0.77	$0.77	$0.77	$0.89	$0.89	$0.97	$0.96	$0.96	$0.96	$1.02	$1.08
Peak	$1.17	$1.17	$1.17	$1.17	$1.36	$1.36	$1.48	$1.48	$1.48	$1.48	$1.57	$1.67
Growth Charge	$0.63	$0.63	$0.68	$0.68	$0.77	$0.77	$0.82	$0.40	$0.40	$0.94	$0.81	$0.91
Demand Charge												
($/1000 gals of deficient storage)	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00
Meter Charge ($s/mtr/mo)												
1 inch	$54.00	$54.00	$54.00	$54.00	$54.00	$54.00	$54.00	$54.00	$54.00	$54.00	$54.00	$54.00
1 1/2 inch	$60.00	$60.00	$60.00	$60.00	$60.00	$60.00	$60.00	$60.00	$60.00	$60.00	$60.00	$60.00
2 inch	$66.00	$66.00	$66.00	$66.00	$66.00	$66.00	$66.00	$66.00	$66.00	$66.00	$66.00	$66.00
3 inch	$78.00	$78.00	$78.00	$78.00	$78.00	$78.00	$78.00	$78.00	$78.00	$78.00	$78.00	$78.00
4 inch	$108.00	$108.00	$108.00	$108.00	$108.00	$108.00	$108.00	$108.00	$108.00	$108.00	$108.00	$108.00
6 inch	$192.00	$192.00	$192.00	$192.00	$192.00	$192.00	$192.00	$192.00	$192.00	$192.00	$192.00	$192.00
8 inch	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00
10 inch	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00	$450.00
12 inch	$528.00	$528.00	$528.00	$528.00	$528.00	$528.00	$528.00	$528.00	$528.00	$528.00	$528.00	$528.00
16 inch	$696.00	$696.00	$696.00	$696.00	$696.00	$696.00	$696.00	$696.00	$696.00	$696.00	$696.00	$696.00
20 inch	$948.00	$948.00	$948.00	$948.00	$948.00	$948.00	$948.00	$948.00	$948.00	$948.00	$948.00	$948.00
24 inch	$1,236.00	$1,236.00	$1,236.00	$1,236.00	$1,236.00	$1,236.00	$1,236.00	$1,236.00	$1,236.00	$1,236.00	$1,236.00	$1,236.00

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	3/7/03	1/1/04	1/1/05	1/1/06	6/1/06	1/1/07	1/1/08
2001 Contracts												
Commodity Rate (per ccf)												
Off-Peak			$0.77	$0.77	$0.84	$0.84	$0.94	$1.01	$1.07	$1.02	$1.03	$1.04
Peak			$1.10	$1.10	$1.27	$1.27	$1.42	$1.53	$1.61	$1.57	$1.59	$1.60
Growth Charge			$0.60	$0.60	$0.60	$0.60	$0.60	$0.60	$0.60	$0.60	$0.60	$0.60
Demand Charge ($/1000 gals of deficient storage)			$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00	$22.00
One Time New Service Fee ($s/mtr)												
3/4 inch			$1,349	$1,349	$1,349	$713	$713	$713	$713	$713	$713	$713
1 inch			$2,698	$2,698	$2,698	$1,426	$1,426	$1,426	$1,426	$1,426	$1,426	$1,426
1 1/2 inch			$6,745	$6,745	$6,745	$3,565	$3,565	$3,565	$3,565	$3,565	$3,565	$3,565
2 inch			$10,792	$10,792	$10,792	$5,704	$5,704	$5,704	$5,704	$5,704	$5,704	$5,704
3 inch			$29,678	$29,678	$29,678	$15,686	$15,686	$15,686	$15,686	$15,686	$15,686	$15,686
4 inch			$41,819	$41,819	$41,819	$22,103	$22,103	$22,103	$22,103	$22,103	$22,103	$22,103
6 inch			$89,034	$89,034	$89,034	$47,058	$47,058	$47,058	$47,058	$47,058	$47,058	$47,058
8 inch			$151,088	$151,088	$151,088	$79,856	$79,856	$79,856	$79,856	$79,856	$79,856	$79,856
10 inch			$227,981	$227,981	$227,981	$120,497	$120,497	$120,497	$120,497	$120,497	$120,497	$120,497
12 inch			$321,062	$321,062	$321,062	$169,694	$169,694	$169,694	$169,694	$169,694	$169,694	$169,694
16 inch			$321,062	$321,062	$321,062	$169,694	$169,694	$169,694	$169,694	$169,694	$169,694	$169,694
20 inch			$321,062	$321,062	$321,062	$169,694	$169,694	$169,694	$169,694	$169,694	$169,694	$169,694
24 inch			$321,062	$321,062	$321,062	$169,694	$169,694	$169,694	$169,694	$169,694	$169,694	$169,694

D1.4. Private Fire Rate History

Effective Date:	5/16/01	7/16/01	1/1/02	7/16/02	9/16/02	1/1/04	6/1/06	1/1/07	1/1/08
Volume (Penalty) Rate per ccf									
Inside	$14.90	$14.90	$16.00	$16.00	$20.00	$20.00	$20.00	$20.00	$20.00
Outside	$17.00	$17.00	$18.20	$18.20	$22.80	$22.80	$22.80	$22.80	$22.80
Shoreline	$17.00	$17.00	$18.20	$18.20	$22.80	$22.80	$24.30	$24.30	$24.30
Meter Charge ($s/mtr/mo)									
Inside Seattle									
2 inch	$9.30	$9.30	$10.00	$10.00	$13.20	$15.40	$15.40	$15.40	$15.40
3 inch	$19.00	$19.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00
4 inch	$28.00	$28.00	$30.00	$30.00	$32.00	$37.00	$37.00	$37.00	$37.00
6 inch	$59.00	$59.00	$63.00	$63.00	$63.00	$63.00	$63.00	$63.00	$63.00
8 inch	$93.00	$93.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00
10 inch	$134.00	$134.00	$144.00	$144.00	$144.00	$144.00	$144.00	$144.00	$144.00
12 inch	$196.00	$196.00	$210.00	$210.00	$210.00	$210.00	$210.00	$210.00	$210.00
Outside Seattle									
2 inch	$10.60	$10.60	$11.00	$11.00	$15.00	$18.00	$18.00	$18.00	$18.00
3 inch	$22.00	$22.00	$23.00	$23.00	$23.00	$23.00	$23.00	$23.00	$23.00
4 inch	$32.00	$32.00	$34.00	$34.00	$36.00	$42.00	$42.00	$42.00	$42.00
6 inch	$67.00	$67.00	$72.00	$72.00	$72.00	$72.00	$72.00	$72.00	$72.00
8 inch	$106.00	$106.00	$114.00	$114.00	$114.00	$114.00	$114.00	$114.00	$114.00
10 inch	$153.00	$153.00	$164.00	$164.00	$164.00	$164.00	$164.00	$164.00	$164.00
12 inch	$223.00	$223.00	$239.00	$239.00	$239.00	$239.00	$239.00	$239.00	$239.00
Shoreline									
2 inch	$10.60	$10.60	$11.00	$11.00	$15.00	$18.00	$19.00	$19.00	$19.00
3 inch	$22.00	$22.00	$23.00	$23.00	$23.00	$23.00	$24.00	$24.00	$24.00
4 inch	$32.00	$32.00	$34.00	$34.00	$36.00	$42.00	$45.00	$45.00	$45.00
6 inch	$67.00	$67.00	$72.00	$72.00	$72.00	$72.00	$76.00	$76.00	$76.00
8 inch	$106.00	$106.00	$114.00	$114.00	$114.00	$114.00	$121.00	$121.00	$121.00
10 inch	$153.00	$153.00	$164.00	$164.00	$164.00	$164.00	$175.00	$175.00	$175.00
12 inch	$223.00	$223.00	$239.00	$239.00	$239.00	$239.00	$255.00	$255.00	$255.00

D1.5. Public Fire Rate History

Effective Date:	1/1/05	1/1/06	6/1/06	1/1/07	1/1/08
Hydrants on 4 inch Mains	$112.44	$114.08	$182.28	$163.67	$172.81
Hydrants on 6 inch and larger mains	$223.75	$227.02	$334.20	$300.43	$317.21

D1.6. Average System Rate Increase History

Effective Date	Rate Increase
May 16, 2001	5.9%
July 16, 2001	3rd Tier Adopted
January 1, 2002	5.6%
September 16, 2002	14.5%
January 1, 2004	10.6%
January 1, 2005	0.2%
June 1, 2006	0.8%
January 1, 2007	4.6%
January 1, 2008	5.9%

D1.7. Actual, Proposed, and Projected Financial Performance

	Target	Projected 2008	Proposed 2009	Proposed 2010	Proposed 2011	Proposed 2012	Proposed 2013	Proposed 2014
Net Income ($1,000's)	positive	39	2,068	967	7,017	8,140	5,717	4,436
Debt Service Coverage	1.7x	1.69	1.72	1.81	1.70	1.77	1.71	1.78
Cash Financing of the Capital Program	20%*	32.4%	22.6%	20.0%	16.6%	20.0%	20.0%	20.0%
from Contributions in Aid of Construction		15.4%	13.0%	12.8%	16.6%	15.5%	15.7%	14.6%
from Rate Revenues		16.0%	9.1%	6.6%	0.0%	4.5%	4.3%	5.4%
from Bonneville Power Administration Account		0.9%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%
Year-End Operating Cash ($1,000's)	varies**	6,174	15,000	7,775	8,218	8,506	8,829	9,165
Revenue Stabilization Fund Withdrawal		0	0	0	5,034	0	0	0

* Current revenues should be used to finance no less than 15% of the CIP in any one year, and not less than 20% in each rate proposal

** Year-End Operating Cash Target is 1/12th of the current year's operating expenses

D1.8. Actual, Proposed, and Projected Revenues

Revenue Source	Actual 2005	Actual 2006	Actual 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013	Projected 2014
Investment Interest	2,491,815	2,984,761	3,909,309	855,493	2,945,443	3,093,692	2,600,488	681,687	(1,371,395)	(2,047,989)
Other Interest										
Sale of Property	-	50,797	4,521,912		20,000,000					
Timber Sales	16,451	2,155	8,116							
Retail Water Sales	96,516,539	102,210,635	102,333,620	108,793,931	127,431,501	136,356,172	148,435,290	161,459,126	165,986,342	174,183,044
Wholesale Water Sales	39,659,201	40,004,830	41,054,371	44,000,000	48,825,000	49,958,000	49,222,000	51,273,000	53,032,000	54,622,960
Facilities Charges	747,224	821,376	504,014	501,000	501,000	501,000	501,000	501,000	501,000	501,000
Call Center payments for City Light	1,082,335	1,330,843	1,137,128	1,194,842	1,863,625	1,562,355	1,601,414	1,641,449	1,682,485	1,724,548
Inventory Purchased by SDOT	344,485	486,522	361,925	375,000	384,375	393,984	403,834	413,930	424,278	434,885
Miscellaneous Water Ser. Charges (incl tap fees)	6,784,605	7,743,171	10,670,565	10,000,000	10,000,000	10,000,000	10,125,000	10,251,563	10,379,707	10,509,453
Wholesale Water Credits	(1,134,608)	(1,088,491)	-	-	-	-				
Rentals--Non-City	322,286	410,468	354,644	363,510	372,598	381,913	391,461	401,247	411,278	421,560
Other Operating Revenues	-	-	-	-	-	-				
NSF Check Charges	19,507	16,925	16,826	17,247	17,678	18,120	18,573	19,037	19,513	20,001
Contributions in Aid of Construction	4,772,832	4,854,232	5,037,140	3,470,471	4,014,002	3,859,924	3,792,491	3,801,328	3,842,264	3,876,394
Bond Issue Proceeds/Existing Bonds		114,245,733								
Bond Issue Proceeds/Future Bonds				117,578,884		151,191,789		47,153,894		176,914,030
Salvage	9,410	-	-							
Other Miscellaneous Revenue	10,541	129,444	646,732	1,708,144	1,747,917	2,788,649	2,830,361	2,898,079	2,967,452	3,038,520
Operating Grants	320,928	282,136	695,123	-	-	-	-	-	-	-
Rate Stabilization Account	(625,000)	-	-	-	-	-	5,034,000	-	-	-
BPA Fund	3,351,050	1,930,080	413,024	680,000	680,000	680,000	-	-	-	-
Water Service for Fire Protection	4,151,388	5,466,562	5,581,911	5,782,759	6,773,408	7,247,784	7,889,830	8,582,090	8,822,726	9,258,408

D1.9. Actual, Proposed, and Projected Operations Expenditures

	Actual 2005	Actual 2006	Actual 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013	Projected 2014
General Expense										
Taxes	19,448,103	23,405,338	24,176,968	24,483,416	30,411,588	32,397,145	34,981,733	37,849,028	38,872,217	40,691,951
Other	9,833,780	9,901,193	20,689,218	18,164,319	22,618,999	23,904,037	25,268,359	26,152,751	27,146,556	28,178,125
Director's Office	2,380,566	1,967,868	2,637,059	2,678,879	3,335,856	3,525,374	3,726,585	3,857,015	4,003,582	4,155,718
Finance and Administration	9,844,760	9,228,204	7,655,637	8,270,699	10,299,033	10,884,146	11,505,358	11,908,045	12,360,551	12,830,252
Customer Service	9,017,781	9,201,591	8,638,878	9,382,368	11,683,332	12,347,090	13,051,799	13,508,612	14,021,939	14,554,773
Engineering Services	2,955,647	2,978,668	2,853,880	3,379,446	4,208,233	4,447,313	4,701,143	4,865,683	5,050,579	5,242,501
Resource Management/Science, Sustainability, & Watersheds	8,289,272	8,640,432	10,156,664							
Field Operations	25,514,666	14,991,084	15,589,735	19,025,007	23,690,765	25,036,693	26,465,661	27,391,959	28,432,853	29,513,302
Utility Systems Management		12,216,800	8,143,796	18,671,377	23,250,409	24,571,320	25,973,726	26,882,807	27,904,354	28,964,719
G&A Credits	(8,652,998)	(8,781,614)	(8,342,479)	(8,677,996)	(10,806,217)	(11,420,144)	(12,071,948)	(12,494,466)	(12,969,256)	(13,462,088)
Debt Service										
Interest	37,112,119	34,993,077	38,945,221	41,451,000	45,025,102	45,025,102	45,025,102	45,025,102	45,025,102	45,025,102
Principal	22,370,000	24,212,945	20,003,217	22,140,000	25,992,652	25,992,652	25,992,652	25,992,652	25,992,652	25,992,652

D1.10. Operations Budget History

	Budget 2005	Budget 2006	Budget 2007	Budget 2008
General Expense				
Taxes	20,714,751	23,355,003	25,137,790	24,483,416
Other	9,265,090	9,122,783	20,547,126	18,164,319
Director's Office	2,141,649	1,395,587	2,709,505	2,678,879
Finance and Administration	9,445,669	9,953,701	7,666,476	8,270,699
Customer Service	9,111,066	9,473,528	8,647,287	9,382,368
Engineering Services	2,519,908	2,616,821	3,103,678	3,379,446
Resource Management/Science, Sustainability, & Watersheds	7,947,625	10,216,230	10,156,105	10,543,313
Field Operations	26,131,544	14,914,059	17,486,276	19,025,007
Utility Systems Management		11,654,463	8,636,050	8,128,064
G&A Credits	(7,477,233)	(7,092,200)	(7,269,000)	(8,677,996)
Debt Service				
Interest	39,030,594	39,451,110	39,405,000	41,451,000
Principal	21,972,212	21,880,376	19,886,000	22,140,000

APPENDIX E: PROPOSED RATES

Effective January 1, 2009

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
		Direct Service													Wholesale	
	RATE SCHEDULES	Inside City					Outside City				City of Shoreline				Old	New
		Residential	MMRD*	Elig Proj#	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Contract	Contract
1	Commodity Charge ($/100 Cubic Feet)															
2																
3	Offpeak Usage (Sept 16-May 15)	$3.09	$3.09	$4.34	$3.09		$3.52	$3.52	$3.52		$3.75	$3.75	$3.75		$1.19	$1.27
4	Peak Usage (May 16-Sept 15)															
5	Up to 5 ccf**	$3.40	$3.40	$4.65	$3.96		$3.88	$3.88	$4.51		$4.12	$4.12	$4.80		$1.83	$1.89
6	Next 13 ccf**	$3.96	$3.96	$5.21	$3.96		$4.51	$4.51	$4.51		$4.80	$4.80	$4.80		$1.83	$1.89
7	Over 18 ccf**	$10.10	$10.10	$10.10	$3.96		$11.51	$11.51	$4.51		$12.25	$12.25	$4.80		$1.83	$1.89
8																
9	Usage over base allowance					$20.00				$22.80				$24.30	$0.31	$0.60
10																
11	Utility Credit ($/month)	$14.53			$7.96		$14.53		$7.96		$14.53		$7.96			
12																
13	Demand Charge														$22.00	$22.00
14	($/1000 gallons of deficient storage)															
15																
16	Base Service Charge ($/month/meter)															New Srvc Fee
17																(One Time)
18	3/4 inch and less	$11.10			$11.10		$12.70		$12.70		$13.50		$13.50			$713
19	1 inch	$11.40			$11.40		$13.00		$13.00		$13.80		$13.80		$54.00	$1,426
20	1-1/2 inch	$17.60	$17.60	$17.60	$17.60		$20.10	$20.10	$20.10		$21.30	$21.30	$21.30		$60.00	$3,565
21	2 inch	$22.50	$22.50	$22.50	$22.50	$15.40	$25.70	$25.70	$25.70	$18.00	$27.30	$27.30	$27.30	$19.00	$66.00	$5,704
22	3 inch	$69.13	$69.13	$69.13	$69.13	$20.00	$79.00	$79.00	$79.00	$23.00	$83.80	$83.80	$83.80	$24.00	$78.00	$15,686
23	4 inch	$103.70	$103.70	$103.70	$103.70	$37.00	$118.00	$118.00	$118.00	$42.00	$125.80	$125.80	$125.80	$45.00	$108.00	$22,103
24	6 inch		$127.60	$127.60	$127.60	$63.00		$145.00	$145.00	$72.00		$155.00	$155.00	$76.00	$192.00	$47,058
25	8 inch		$199.00	$199.00	$199.00	$100.00		$227.00	$227.00	$114.00		$241.00	$241.00	$121.00	$300.00	$79,856
26	10 inch		$297.00	$297.00	$297.00	$144.00		$339.00	$339.00	$164.00		$360.00	$360.00	$175.00	$450.00	$120,497
27	12 inch		$402.00	$402.00	$402.00	$210.00		$458.00	$458.00	$239.00		$488.00	$488.00	$255.00	$528.00	$169,694
28	16 inch		$477.00	$477.00	$477.00			$544.00	$544.00			$578.00	$578.00		$696.00	$169,694
29	20 inch		$614.00	$614.00	$614.00			$700.00	$700.00			$745.00	$745.00		$948.00	$169,694
30	24 inch		$771.00	$771.00	$771.00			$879.00	$879.00			$935.00	$935.00		$1,236.00	$169,694

* Master Metered Residential Development

\# Master Metered Residential Development: Eligible Projects (Holly Park)

** per residence

Effective January 1, 2010

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
	Direct Service													Wholesale	
RATE SCHEDULES	Inside City					Outside City				City of Shoreline				Old	New
	Residential	MMRD*	Elig Proj#	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Contract	Contract
Commodity Charge ($/100 Cubic Feet)															
Offpeak Usage (Sept 16-May 15)	$3.34	$3.34	$4.59	$3.34		$3.81	$3.81	$3.81		$4.05	$4.05	$4.05		$1.29	$1.28
Peak Usage (May 16-Sept 15)															
Up to 5 ccf**	$3.68	$3.68	$4.93	$4.28		$4.20	$4.20	$4.88		$4.46	$4.46	$5.19		$1.98	$1.89
Next 13 ccf**	$4.28	$4.28	$5.53	$4.28		$4.88	$4.88	$4.88		$5.19	$5.19	$5.19		$1.98	$1.89
Over 18 ccf**	$10.92	$10.92	$10.92	$4.28		$12.45	$12.45	$4.88		$13.24	$13.24	$5.19		$1.98	$1.89
Usage over base allowance					$20.00				$22.80				$24.30	$0.31	$0.60
Utility Credit ($/month)	$15.71			$8.61		$15.71		$8.61		$15.71		$8.61			
Demand Charge ($/1000 gallons of deficient storage)														$22.00	$22.00
Base Service Charge ($/month/meter)															New Srvc Fee (One Time)
3/4 inch and less	$12.00			$12.00		$13.70		$13.70		$14.60		$14.60			$713
1 inch	$12.40			$12.40		$14.10		$14.10		$15.00		$15.00		$54.00	$1,426
1-1/2 inch	$19.10	$19.10	$19.10	$19.10		$21.80	$21.80	$21.80		$23.20	$23.20	$23.20		$60.00	$3,565
2 inch	$23.20	$23.20	$23.20	$23.20	$15.40	$26.40	$26.40	$26.40	$18.00	$28.10	$28.10	$28.10	$19.00	$66.00	$5,704
3 inch	$74.73	$74.73	$74.73	$74.73	$20.00	$85.20	$85.20	$85.20	$23.00	$90.60	$90.60	$90.60	$24.00	$78.00	$15,686
4 inch	$112.10	$112.10	$112.10	$112.10	$37.00	$127.80	$127.80	$127.80	$42.00	$136.00	$136.00	$136.00	$45.00	$108.00	$22,103
6 inch		$137.90	$137.90	$137.90	$63.00		$157.00	$157.00	$72.00		$167.00	$167.00	$76.00	$192.00	$47,058
8 inch		$199.00	$199.00	$199.00	$100.00		$227.00	$227.00	$114.00		$241.00	$241.00	$121.00	$300.00	$79,856
10 inch		$297.00	$297.00	$297.00	$144.00		$339.00	$339.00	$164.00		$360.00	$360.00	$175.00	$450.00	$120,497
12 inch		$402.00	$402.00	$402.00	$210.00		$458.00	$458.00	$239.00		$488.00	$488.00	$255.00	$528.00	$169,694
16 inch		$477.00	$477.00	$477.00			$544.00	$544.00			$578.00	$578.00		$696.00	$169,694
20 inch		$614.00	$614.00	$614.00			$700.00	$700.00			$745.00	$745.00		$948.00	$169,694
24 inch		$771.00	$771.00	$771.00			$879.00	$879.00			$935.00	$935.00		$1,236.00	$169,694

* Master Metered Residential Development

\# Master Metered Residential Development: Eligible Projects (Holly Park)

** per residence

Effective January 1, 2011

	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
		Direct Service													Wholesale	
	RATE SCHEDULES	Inside City					Outside City				City of Shoreline				Old	New
		Residential	MMRD*	Elig Proj#	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Contract	Contract
1	Commodity Charge ($/100 Cubic Feet)															
2																
3	Offpeak Usage (Sept 16-May 15)	$3.67	$3.67	$4.92	$3.67		$4.18	$4.18	$4.18		$4.45	$4.45	$4.45		$1.40	$1.29
4	Peak Usage (May 16-Sept 15)															
5	Up to 5 ccf**	$4.04	$4.04	$5.29	$4.70		$4.61	$4.61	$5.36		$4.90	$4.90	$5.70		$2.15	$1.91
6	Next 13 ccf**	$4.70	$4.70	$5.95	$4.70		$5.36	$5.36	$5.36		$5.70	$5.70	$5.70		$2.15	$1.91
7	Over 18 ccf**	$12.00	$12.00	$12.00	$4.70		$13.68	$13.68	$5.36		$14.55	$14.55	$5.70		$2.15	$1.91
8																
9	Usage over base allowance					$20.00				$22.80				$24.30	$0.31	$0.60
10																
11	Utility Credit ($/month)	$17.27			$9.45		$17.27		$9.45		$17.27		$9.45			
12																
13	Demand Charge														$22.00	$22.00
14	($/1000 gallons of deficient storage)															
15																
16	Base Service Charge ($/month/meter)															New Srvc Fee
17																(One Time)
18	3/4 inch and less	$13.20			$13.20		$15.00		$15.00		$16.00		$16.00			$713
19	1 inch	$13.60			$13.60		$15.50		$15.50		$16.50		$16.50		$54.00	$1,426
20	1-1/2 inch	$21.00	$21.00	$21.00	$21.00		$23.90	$23.90	$23.90		$25.50	$25.50	$25.50		$60.00	$3,565
21	2 inch	$23.20	$23.20	$23.20	$23.20	$15.40	$26.40	$26.40	$26.40	$18.00	$28.10	$28.10	$28.10	$19.00	$66.00	$5,704
22	3 inch	$82.20	$82.20	$82.20	$82.20	$20.00	$93.70	$93.70	$93.70	$23.00	$99.70	$99.70	$99.70	$24.00	$78.00	$15,686
23	4 inch	$123.30	$123.30	$123.30	$123.30	$37.00	$140.60	$140.60	$140.60	$42.00	$149.50	$149.50	$149.50	$45.00	$108.00	$22,103
24	6 inch		$151.70	$151.70	$151.70	$63.00		$173.00	$173.00	$72.00		$184.00	$184.00	$76.00	$192.00	$47,058
25	8 inch		$199.00	$199.00	$199.00	$100.00		$227.00	$227.00	$114.00		$241.00	$241.00	$121.00	$300.00	$79,856
26	10 inch		$297.00	$297.00	$297.00	$144.00		$339.00	$339.00	$164.00		$360.00	$360.00	$175.00	$450.00	$120,497
27	12 inch		$402.00	$402.00	$402.00	$210.00		$458.00	$458.00	$239.00		$488.00	$488.00	$255.00	$528.00	$169,694
28	16 inch		$477.00	$477.00	$477.00			$544.00	$544.00			$579.00	$579.00		$696.00	$169,694
29	20 inch		$614.00	$614.00	$614.00			$700.00	$700.00			$745.00	$745.00		$948.00	$169,694
30	24 inch		$771.00	$771.00	$771.00			$879.00	$879.00			$935.00	$935.00		$1,236.00	$169,694

* Master Metered Residential Development

\# Master Metered Residential Development: Eligible Projects (Holly Park)

** per residence

APPENDIX F: REVISED TABLES TO MATCH ADOPTED RATES

1. Executive Summary

Table 1-1
Proposed Water System Revenue Requirement and Bill Impacts

	*2008**	*2009 Proposed*		*2010 Proposed*		*2011 Proposed*	
			Change from 2008		**Change from 2009**		**Change from 2010**
Retail Rate Revenue Requirement	$110,817,799	$128,454,929	$17,637,130	$136,805,721	$8,350,793	$153,942,605	$17,136,883
Typical Monthly Water Bills							
Residential	$24.61	$27.74	$3.13	$29.87	$2.13	$34.01	$4.15
Convenience Store	$67.15	$75.69	$8.53	$81.53	$5.84	$92.81	$11.28
Apartment Building	$183.26	$206.16	$22.90	$222.18	$16.02	$252.82	$30.64
Large Industrial	$11,749.67	$13,216.33	$1,466.67	$14,224.33	$1,008.00	$16,160.33	$1,936.00

* 2008 amounts are based on the 2006-2008 rate study

Figure 1-1
Water Fund Revenue Requirement Drivers

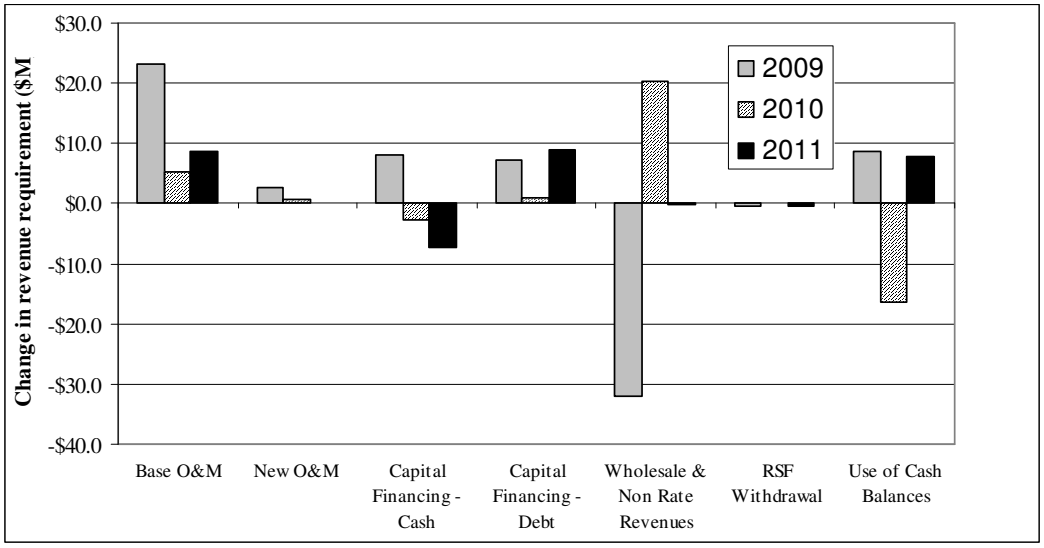


Table 1-2
Water Fund Projected Financial Performance

	Target	Projected 2008	Proposed 2009	Proposed 2010	Proposed 2011	Proposed 2012	Proposed 2013	Proposed 2014
Net Income ($1,000's)	positive	50	923	109	5,411	8,745	5,281	4,045
Debt Service Coverage	1.7x	1.55	1.70	1.78	1.70	1.80	1.72	1.79
Cash Financing of the Capital Program	20%*	15.0%	23.1%	21.1%	18.6%	20.0%	20.0%	20.0%
from Contributions in Aid of Construction		4.5%	13.6%	13.9%	18.6%	15.5%	15.7%	14.6%
from Rate Revenues		10.0%	8.8%	6.5%	0.0%	4.5%	4.3%	5.4%
from Bonneville Power Administration Account		0.5%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%
Year-End Operating Cash ($1,000's)	varies**	6,174	15,000	7,558	7,996	8,506	8,829	9,165
Revenue Stabilization Fund Withdrawal		0	1,500	1,500	1,996	0	0	0

* Current revenues should be used to finance no less than 15% of the CIP in any one year, and not less than 20% in each rate proposal
** Year-End Operating Cash Target is 1/12th of the current year's operating expenses

2. Financial Policy Overview

No changes in this section

3. Retail Water Revenue Requirement

Table 3-1
Components of the Change in the Retail Water Revenue Requirement

($1,000's)	2008 *	2009	$ Change in Rev Req	% Change in Total Rev Req	2010	$ Change in Rev Req	% Change in Total Rev Req	2011	$ Change in Rev Req	% Change in Total Rev Req
Expense										
Operations and Maintenance Expense (O&M)										
Base O&M	65,618	78,808	13,189	11.9%	80,843	2,036	1.6%	85,746	4,903	3.6%
New O&M	-	2,593	2,593	2.3%	3,416	823	0.6%	3,534	119	0.1%
FAS71	-	5,086	5,086	4.6%	6,443	1,357	1.1%	6,668	225	0.2%
Taxes	24,291	29,226	4,935	4.5%	30,995	1,769	1.4%	34,490	3,495	2.6%
Total	89,909	115,712	25,803	23.3%	121,697	5,985	4.7%	130,439	8,742	6.4%
Capital Financing										
Cash	15,639	23,797	8,158	7.4%	21,034	(2,763)	-2.2%	13,792	(7,241)	-5.3%
Debt Service	63,174	70,541	7,366	6.6%	71,551	1,011	0.8%	80,629	9,078	6.6%
Total	78,813	94,337	15,524	14.0%	92,585	(1,752)	-1.4%	94,422	1,836	1.3%
Total Revenue Requirement	**168,722**	**210,050**	**41,327**	**37.3%**	**214,282**	**4,233**	**3.3%**	**224,861**	**10,579**	**7.7%**
Other Funding Sources										
Wholesale Revenues	44,161	49,326	(5,165)	-4.7%	50,459	(1,133)	-0.9%	49,723	736	0.6%
CIAC (incl tap fees)	8,127	14,694	(6,567)		14,540	154		13,792	747	
Interest income (without interest in bond fund	17	97	(80)		275	(177)		(237)	512	
rentals & others	2,646	2,876	(229)		2,597	279		2,659	(62)	
charges for shutoffs & others	1,598	1,510	88		2,548	(1,038)		2,587	(39)	
billing leads, 13th month CIP	56	315	(259)		(1,988)	2,303		135	(2,123)	
cash from asset sales	-	20,000	(20,000)		-	20,000		-	-	
unmetered revenue	283	102	181		104	(3)		107	(3)	
Non-rate revenues	12,728	39,595	(26,867)	-24.2%	18,076	21,519	16.8%	19,043	(967)	-0.8%
RSF withdrawal	1,150	1,500	(350)	-0.3%	1,500	-	0.0%	1,996	(496)	-0.4%
Drawdowns of Cash Balances	(133)	(8,826)	8,693	7.8%	7,442	(16,267)	-12.7%	(437)	7,879	6.1%
Total	57,906	81,595	(23,689)	-21.4%	77,477	4,118	3.2%	70,325	7,152	5.6%
Net Retail Rates Rev Requirement	**110,817**	**128,455**	**17,638**	**15.9%**	**136,806**	**8,351**	**6.5%**	**154,536**	**17,730**	**13.3%**
Rate Adjustments										
Change in Demand (CCF/1000)	27,020	28,130	(1,110)	**-3.6%**	27,970	160	**0.4%**	27,800	170	**0.4%**
Increase in Low Income Rate Assistance Program				**0.4%**			**0.8%**			**0.7%**
Effective Increase in Retail Rates				**12.7%**			**7.7%**			**14.4%**

* 2008 assumptions used in 2006-2008 Rate Study

Table 3-2
Change in Operating and Maintenance Expenditures

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Base O&M							
Existing base (increases due to inflation, increased energy costs, salary adjustments, City central cost increases, and other fixed cost increases)	65,618	78,808	13,189	80,843	2,036	85,746	4,903
FAS-71 expenses	-	5,086	5,086	6,443	1,357	6,668	225
Taxes	24,291	29,226	4,935	30,995	1,769	34,490	3,495
Total Base O&M	**89,909**	**113,120**	**23,210**	**118,281**	**5,162**	**126,905**	**8,623**
New O&M							
BIP SPU-108 Shared Fund - Construction Management FTEs	-	84	84	87	3	90	3
BIP SPU-109 Shared Fund - Customer Service MOAs	-	226	226	197	(28)	204	7
BIP SPU-111 Shared Fund - Citywide GIS Catch-Up Funding	-	80	80	83	3	86	3
BIP SPU-112 Shared Fund - Citywide GIS Restoration	-	142	142	148	6	153	5
BIP SPU-118 Deferred Maintenance	-	937	937	1,233	296	1,276	43
BIP SPU-119 Cedar Filtration & Lake Youngs Water Quality Studies	-	-	-	130	130	135	5
BIP SPU-120 Tolt Watershed Master Plan Implementation	-	-	-	296	296	306	10
BIP SPU-137 Low Income Rate Assistance	-	21	21	22	1	22	1
BIP SPU-138 Field Operations - Street Repair Costs & Overtime	-	1,043	1,043	1,080	37	1,117	37
BIP SPU-144 Volunteer Reservoir Patrols	-	60	60	140	80	145	5
Total New O&M	**-**	**2,593**	**2,593**	**3,416**	**823**	**3,534**	**119**
Total O&M	**89,909**	**115,712**	**25,803**	**121,697**	**5,985**	**130,439**	**8,742**

* 2009 amounts are relative to 2008 assumptions used in 2006-2008 Rate Study

Table 3-3
Capital Spending and Financing Assumptions

($1,000's)	2009	2010	2011	3 year average
CIP Spending Assumptions				
Budgeted CIP	114,543	111,009	82,440	
Accomplished CIP (90%)	103,089	99,908	74,196	
CIP Financing Breakdown				
Cash Financed	23,797	21,034	13,792	
Debt Financing				
Low Interest Loan	16,000	-	-	
Bond Financing	63,292	78,874	60,403	
Cash Financed Percentage	23.1%	21.1%	18.6%	21.1%
Bond Financed Percentage	76.9%	78.9%	81.4%	78.9%

Table 3-4
Change in Cash Financing

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Cash Financed	15,639	23,797	8,158	21,034	(2,763)	13,792	(7,241)

* 2008 assumptions used in 2006-2008 Rate Study

Table 3-5
Change in Water Fund Debt Service

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Debt Service Details							
Debt service for existing bond issues	63,174	63,369	195	63,375	6	63,375	-
2008 bond debt service**		7,172	7,172	7,172	-	7,172	-
2009 low interest loan debt service		-	-	1,004	1,004	1,103	99
2010 bond debt service		-	-	-	-	8,979	8,979
Total debt service	63,174	70,541	7,366	71,551	1,011	80,629	9,078

* 2008 assumptions used in 2006-2008 Rate Study

** 2008 bond payments begin in 2009

Table 3-6
Change in Wholesale Revenues
No change from proposal

Table 3-7
Change in Non-rate Revenues

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Unmetered Revenues							
Capital Contributions & Tap Fees	8,127	14,694	(6,567)	14,540	154	13,792	747
Operating Fund Interest Income	17	97	(80)	275	(177)	(237)	512
Rentals & Others	2,646	2,876	(229)	2,597	279	2,659	(62)
Charges for shutoffs & others	1,598	1,510	88	2,548	(1,038)	2,587	(39)
Billing leads & lags	56	315	(259)	(1,988)	2,303	135	(2,123)
Asset sales	-	20,000	(20,000)	-	20,000	-	-
Unmetered revenue	283	102	181	104	(3)	107	(3)
Total Unmetered Revenues	12,728	39,595	(26,867)	18,076	21,519	19,043	(967)

* 2008 assumptions used in 2006-2008 Rate Study

Table 3-8
Projected Water Rate Stabilization Fund Balances

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Beginning RSF Cash Balance		12,937		11,876		10,699	
Interest		439		323		297	
Deposit (Withdrawal)	(1,150)	(1,500)		(1,500)		(1,996)	
Ending RSF Cash Balance		11,876		10,699		9,000	
Cash used to support revenue requirement	**(1,150)**	**(1,500)**	**(350)**	**(1,500)**	**0**	**(1,996)**	**(496)**

* 2008 assumptions used in 2006-2008 Rate Study

Table 3-9
Change in Water Operating Fund Cash Balances

($1,000's)	2008 *	2009	$ Change	2010	$ Change	2011	$ Change
Beginning Cash Balance	5,335	6,174		15,000		7,558	
Ending Cash Balance	5,468	15,000		7,558		7,134	
Cash used to support revenue requiremment	133	8,826	8,693	(7,442)	(16,267)	(424)	7,017

* 2008 assumptions used in 2006-2008 Rate Study

Figure 3-1
Historical and Forecast Retail Consumption by Class:
Actual and Weather Adjusted
No change from proposal

Table 3-10
Short Term Water Consumption Forecasts (Annual CCF)
No change from proposal

Table 3-11
Effect of Demand on Rate Increase
No change from proposal

Table 3-12
Effect of Changes to Rate Assistance Program on Rate Increase

($1,000's)	2008 *	2009	Change	2010	Change	2011	Change
Total Discount	1,185	1,625	(440)	2,450	(825)	3,273	(823)
Effect on Rate Increase			0.4%		0.8%		0.7%

* 2008 assumptions used in 2006-2008 Rate Study

4. Cost Allocation

No change from proposal other than Table 4-5

Table 4-5
2009-2011 Retail Revenue Requirement
By Customer Class

Customer Class	2007 Total Cost of Service	Cost of Service Percentage	2009 Cost of Service	2010 Cost of Service	2011 Cost of Service
Residential	54,237,652	45.7%	58,743,020	62,561,875	70,398,649
General Service	57,427,213	48.4%	62,197,529	66,240,960	74,538,593
Private Fire	1,452,308	1.2%	1,572,947	1,675,203	1,885,047
Public Fire	5,485,748	4.6%	5,941,433	6,327,683	7,120,316
Total	118,602,921	100.0%	128,454,929	136,805,721	153,942,605

5. Rate Design

Table 5-1
Retail Water Rate Structure Summary
No change from proposal

Table 5-2
Monthly Residential Bills at Proposed Rates

CUSTOMER TYPE	MONTHLY CONSUMPTION		MONTHLY RESIDENTIAL BILLS 2008 Adopted	2009 Proposed	Change from 2008	2010 Proposed	Change from 2009	2011 Proposed	Change from 2010
Low Volume	Winter	2.9	$17.00	$19.16	$2.16	$20.62	$1.47	$23.50	$2.88
User	Summer	3.8	$20.34	$22.95	$2.61	$24.70	$1.75	$28.12	$3.42
(15th %tile)	**Average**	3.2	**$18.11**	**$20.42**	**$2.31**	**$21.98**	**$1.56**	**$25.04**	**$3.06**
Median	Winter	5.2	$23.10	$26.03	$2.93	$28.03	$2.00	$31.93	$3.90
User	Summer	6.1	$27.62	$31.16	$3.54	$33.54	$2.38	$38.18	$4.64
(50th %tile)	**Average**	5.5	**$24.61**	**$27.74**	**$3.13**	**$29.87**	**$2.13**	**$34.01**	**$4.15**
High Volume	Winter	9.8	$35.08	$39.51	$4.43	$42.56	$3.05	$48.48	$5.91
User	Summer	13.4	$51.94	$58.60	$6.66	$63.09	$4.49	$71.79	$8.70
(85th %tile)	**Average**	11.0	**$40.70**	**$45.87**	**$5.18**	**$49.41**	**$3.53**	**$56.25**	**$6.84**
Very High	Winter	32.0	$93.24	$105.00	$11.76	$113.16	$8.16	$128.84	$15.68
User	Summer	50.0	$340.95	$384.47	$43.52	$413.97	$29.50	$470.69	$56.72
	Average	38.0	**$175.81**	**$198.16**	**$22.35**	**$213.43**	**$15.27**	**$242.79**	**$29.36**

Table 5-3
Proposed Residential Rates

	Current Rate	2009 Rate	2010 Rate	2011 Rate
Commodity				
Off-Peak ($/ccf)	$2.62	$2.95	$3.18	$3.62
Peak ($/ccf)				
Up to 5 ccf/mo	$2.88	$3.25	$3.50	$3.98
Next 12 ccf/mo	$3.35	$3.78	$4.07	$4.63
Above 18 ccf/mo	$8.55	$9.64	$10.38	$11.80
Base Service Charge ($/mo)				
3/4 inch	$9.40	$10.60	$11.40	$13.00
1 inch	$10.00	$10.90	$11.80	$13.40
1 1/2 inch	$14.50	$16.90	$18.10	$20.70
2 inch	$21.70	$22.50	$23.20	$22.90
3 inch	$55.30	$69.10	$74.30	$84.70
4 inch	$92.20	$99.00	$106.50	$121.40

Table 5-4
Proposed Rate Assistance Discounts

Customer-type	Current	2009	2010	2011
SPU-billed customers	50% Discount	50% Discount	50% Discount	50% Discount
Non-SPU-billed customers				
Single-family (Residential)	$13.35/month	$13.88/month	$14.94/month	$17.02/month
Multi-family (Gen. Serv.)	$6.10/month	$7.60/month	$8.19/month	$9.32/month

Table 5-5
Monthly General Service Bills at Proposed Rates

CUSTOMER TYPE	MONTHLY CONSUMPTION		MONTHLY GENERAL SERVICE BILLS						
			2008 Adopted	2009 Proposed	Change from 2008	2010 Proposed	Change from 2009	2011 Proposed	Change from 2010
Convenience	Winter	19	$59.18	$66.65	$7.47	$71.82	$5.17	$81.78	$9.96
Store	Summer	22	$83.10	$93.76	$10.66	$100.94	$7.18	$114.86	$13.92
(3/4" meter)	**Average**	**20**	**$67.15**	**$75.69**	**$8.53**	**$81.53**	**$5.84**	**$92.81**	**$11.28**
Apartment	Winter	57	$159.34	$179.05	$19.71	$193.06	$14.01	$219.74	$26.68
Bldg (15 units)	Summer	66	$231.10	$260.38	$29.28	$280.42	$20.04	$318.98	$38.56
(1" meter)	**Average**	**60**	**$183.26**	**$206.16**	**$22.90**	**$222.18**	**$16.02**	**$252.82**	**$30.64**
City	Winter	750	$2,057	$2,312	$254	$2,492	$180	$2,836	$345
Hall	Summer	900	$3,107	$3,501	$394	$3,770	$269	$4,288	$519
(4" meter)	**Average**	**800**	**$2,407**	**$2,708**	**$301**	**$2,918**	**$210**	**$3,320**	**$403**
Large	Winter	3800	$10,155	$11,409	$1,254	$12,283	$874	$13,955	$1,672
Industrial	Summer	4400	$14,939	$16,831	$1,892	$18,107	$1,276	$20,571	$2,464
(8" meter)	**Average**	**4000**	**$11,750**	**$13,216**	**$1,467**	**$14,224**	**$1,008**	**$16,160**	**$1,936**

Table 5-6
Proposed General Service Rates

	Current Rate	2009 Rate	2010 Rate	2011 Rate
Commodity				
Off-Peak ($/ccf)	$2.62	$2.95	$3.18	$3.62
Peak ($/ccf)	$3.35	$3.78	$4.07	$4.63
Base Service Charge ($/mo)				
3/4 inch	$9.40	$10.60	$11.40	$13.00
1 inch	$10.00	$10.90	$11.80	$13.40
1 1/2 inch	$14.50	$16.90	$18.10	$20.70
2 inch	$21.70	$22.50	$23.20	$22.90
3 inch	$55.30	$69.10	$74.30	$84.70
4 inch	$92.20	$99.00	$106.50	$121.40
6 inch	$125.00	$121.80	$131.00	$149.40
8 inch	$199.00	$199.00	$199.00	$199.00
10 inch	$297.00	$297.00	$297.00	$297.00
12 inch	$402.00	$402.00	$402.00	$402.00
16 inch	$477.00	$477.00	$477.00	$477.00
20 inch	$614.00	$614.00	$614.00	$614.00
24 inch	$771.00	$771.00	$771.00	$771.00

Table 5-7
Proposed Private Fire Rates

	Current Rate	2009 Rate	2010 Rate	2011 Rate
Commodity				
Penalty Charge ($/ccf)	$20.00	$20.00	$20.00	$20.00
Base Service Charge ($/mo)				
2 inch	$15.40	$15.40	$15.40	$15.40
3 inch	$20.00	$20.00	$20.00	$20.00
4 inch	$37.00	$37.00	$37.00	$37.00
6 inch	$63.00	$63.00	$63.00	$63.00
8 inch	$100.00	$100.00	$100.00	$100.00
10 inch	$144.00	$144.00	$144.00	$144.00
12 inch	$210.00	$210.00	$210.00	$210.00

Table 5-8
Proposed Public Fire Rates

	Current Rate	2009 Rate	2010 Rate	2011 Rate
Larger Mains	$317.21	$325.00	$346.12	$389.48
4-Inch Mains	$172.81	$162.55	$173.12	$194.80

Table 5-9
Due to a numbering mistake, there is no Table 5-9 in the document

Table 5-10
Annual Public Fire Bills at Proposed Rates

	Hydrant Count			2009	2010	2011
	4-Inch Mains	Larger Mains	Total	Proposed Bill	Proposed Bill	Proposed Bill
Burien	24	73	97	$27,626	$29,422	$33,107
Lake Forest Park	5	48	53	$16,413	$17,480	$19,669
Seattle	124	16,832	16,956	$5,490,496	$5,847,431	$6,579,905
Shoreline	19	889	908	$292,010	$310,994	$349,950
Unincorporated King County	47	330	377	$114,889	$122,357	$137,684
Total	**219**	**18,172**	**18,391**	**$5,941,433**	**$6,327,683**	**$7,120,316**

Appendix A. Cost Allocation Details

No changes in this section

Appendix B. 1982 Wholesale Contract Study

No changes in this section

Appendix C. 2001 Wholesale Contract Study

No changes in this section

Appendix D. Informational Tables

Tables D1.1 through D1.6
No change from proposal

Table D1.7
Actual, Proposed, and Projected Financial Performance

	Target	Projected 2008	Proposed 2009	Proposed 2010	Proposed 2011	Proposed 2012	Proposed 2013	Proposed 2014
Net Income ($1,000's)	positive	50	923	109	5,411	8,745	5,281	4,045
Debt Service Coverage	1.7x	1.55	1.70	1.78	1.70	1.80	1.72	1.79
Cash Financing of the Capital Program	20%*	15.0%	23.1%	21.1%	18.6%	20.0%	20.0%	20.0%
from Contributions in Aid of Construction		4.5%	13.6%	13.9%	18.6%	15.5%	15.7%	14.6%
from Rate Revenues		10.0%	8.8%	6.5%	0.0%	4.5%	4.3%	5.4%
from Bonneville Power Administration Account		0.5%	0.7%	0.7%	0.0%	0.0%	0.0%	0.0%
Year-End Operating Cash ($1,000's)	varies**	6,174	15,000	7,558	7,996	8,506	8,829	9,165
Revenue Stabilization Fund Withdrawal		0	1,500	1,500	1,996	0	0	0

* Current revenues should be used to finance no less than 15% of the CIP in any one year, and not less than 20% in each rate proposal
** Year-End Operating Cash Target is 1/12th of the current year's operating expenses

Table D1.8
Actual, Proposed, and Projected Revenues

Revenue Source	Actual 2005	Actual 2006	Actual 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013	Projected 2014
Investment Interest	2,491,815	2,984,761	3,909,309	836,272	2,704,062	2,847,312	2,351,666	613,304	(1,404,542)	(2,080,738)
Other Interest										
Sale of Property	-	50,797	4,521,912		20,000,000					
Timber Sales	16,451	2,155	8,116							
Retail Water Sales	96,516,539	102,210,635	102,333,620	108,793,931	121,971,726	129,901,048	146,173,022	161,076,014	164,335,747	172,588,723
Wholesale Water Sales	39,659,201	40,004,830	41,054,371	44,000,000	48,825,000	49,958,000	49,222,000	51,273,000	53,032,000	54,622,960
Facilities Charges	747,224	821,376	504,014	501,000	501,000	501,000	501,000	501,000	501,000	501,000
Call Center payments for City Light	1,082,335	1,330,843	1,137,128	1,194,842	1,863,625	1,562,355	1,601,414	1,641,449	1,682,485	1,724,548
Inventory Purchased by SDOT	344,485	486,522	361,925	375,000	384,375	393,984	403,834	413,930	424,278	434,885
Miscellaneous Water Ser. Charges (incl tap fees)	6,784,605	7,743,171	10,670,565	10,000,000	10,000,000	10,000,000	10,125,000	10,251,563	10,379,707	10,509,453
Wholesale Water Credits	(1,134,608)	(1,088,491)	-	-	-	-				
Rentals--Non-City	322,286	410,468	354,644	363,510	372,598	381,913	391,461	401,247	411,278	421,560
Other Operating Revenues	-	-	-	-	-	-				
NSF Check Charges	19,507	16,925	16,826	17,247	17,678	18,120	18,573	19,037	19,513	20,001
Contributions in Aid of Construction	4,772,832	4,854,232	5,037,140	3,470,471	4,014,002	3,859,924	3,792,491	3,801,328	3,842,264	3,876,394
Bond Issue Proceeds/Existing Bonds		114,245,733								
Bond Issue Proceeds/Future Bonds				110,243,852		138,023,831		47,153,894		177,205,410
Salvage	9,410	-	-							
Other Miscellaneous Revenue	10,541	129,444	646,732	1,708,144	1,747,917	2,788,649	2,830,361	2,898,079	2,967,452	3,038,520
Operating Grants	320,928	282,136	695,123	-	-	-	-	-	-	-
Rate Stabilization Account	(625,000)	-	-	-	1,500,000	1,500,000	1,996,000	-	-	-
BPA Fund	3,351,050	1,930,080	413,024	680,000	680,000	680,000	-	-	-	-
Water Service for Fire Protection	4,151,388	5,466,562	5,581,911	5,782,759	6,483,203	6,904,673	7,769,583	8,561,726	8,734,992	9,173,665

Table D1.8
Actual, Proposed, and Projected Operations Expenditures

	Actual 2005	Actual 2006	Actual 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013	Projected 2014
General Expense										
Taxes	19,448,103	23,405,338	24,176,968	24,483,416	29,225,846	30,995,235	34,490,419	37,765,825	38,513,744	40,345,699
Other	9,833,780	9,901,193	20,689,218	18,164,319	22,618,999	23,904,037	25,268,359	26,152,751	27,146,556	28,178,125
Director's Office	2,380,566	1,967,868	2,637,059	2,678,879	3,335,856	3,525,374	3,726,585	3,857,015	4,003,582	4,155,718
Finance and Administration	9,844,760	9,228,204	7,655,637	8,270,699	10,299,033	10,884,146	11,505,358	11,908,045	12,360,551	12,830,252
Customer Service	9,017,781	9,201,591	8,638,878	9,382,368	11,683,332	12,347,090	13,051,799	13,508,612	14,021,939	14,554,773
Engineering Services	2,955,647	2,978,668	2,853,880	3,379,446	4,208,233	4,447,313	4,701,143	4,865,683	5,050,579	5,242,501
Resource Management/Science, Sustainability, & Watersheds	8,289,272	8,640,432	10,156,664							
Field Operations	25,514,666	14,991,084	15,589,735	19,025,007	23,690,765	25,036,693	26,465,661	27,391,959	28,432,853	29,513,302
Utility Systems Management		12,216,800	8,143,796	18,671,377	23,250,409	24,571,320	25,973,726	26,882,807	27,904,354	28,964,719
G&A Credits	(8,652,998)	(8,781,614)	(8,342,479)	(8,677,996)	(10,806,217)	(11,420,144)	(12,071,948)	(12,494,466)	(12,969,256)	(13,462,088)
Debt Service										
Interest	37,112,119	34,993,077	38,945,221	41,451,000	44,658,350	44,658,350	44,658,350	44,658,350	44,658,350	44,658,350
Principal	22,370,000	24,212,945	20,003,217	22,140,000	25,882,249	25,882,249	25,882,249	25,882,249	25,882,249	25,882,249

Table D1.8
Operations Budget History

No change from proposed

Appendix E. Adopted Rates

Effective January 1, 2009

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
	Direct Service													Wholesale	
RATE SCHEDULES	Inside City					Outside City				City of Shoreline				Old	New
	Residential	MMRD*	Elig Proj#	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Contract	Contract
Commodity Charge ($/100 Cubic Feet)															
Offpeak Usage (Sept 16-May 15)	$2.95	$2.95	$4.20	$2.95		$3.36	$3.36	$3.36		$3.58	$3.58	$3.58		$1.19	$1.14
Peak Usage (May 16-Sept 15)															
Up to 5 ccf**	$3.25	$3.25	$4.50	$3.78		$3.71	$3.71	$4.31		$3.94	$3.94	$4.58		$1.83	$1.77
Next 13 ccf**	$3.78	$3.78	$5.03	$3.78		$4.31	$4.31	$4.31		$4.58	$4.58	$4.58		$1.83	$1.77
Over 18 ccf**	$9.64	$9.64	$9.64	$3.78		$10.99	$10.99	$4.31		$11.69	$11.69	$4.58		$1.83	$1.77
Usage over base allowance					$20.00				$22.80				$24.30	$0.31	$0.60
Utility Credit ($/month)	$13.88			$7.60		$13.88		$7.60		$13.88		$7.60			
Demand Charge ($/1000 gallons of deficient storage)														$22.00	$22.00
Base Service Charge ($/month/meter)															New Srvc Fee (One Time)
3/4 inch and less	$10.60			$10.60		$12.10		$12.10		$12.90		$12.90			$713
1 inch	$10.90			$10.90		$12.40		$12.40		$13.20		$13.20		$54.00	$1,426
1-1/2 inch	$16.90	$16.90	$16.90	$16.90		$19.30	$19.30	$19.30		$20.50	$20.50	$20.50		$60.00	$3,565
2 inch	$22.50	$22.50	$22.50	$22.50	$15.40	$25.70	$25.70	$25.70	$18.00	$27.30	$27.30	$27.30	$19.00	$66.00	$5,704
3 inch	$69.10	$69.10	$69.10	$69.10	$20.00	$79.00	$79.00	$79.00	$23.00	$83.80	$83.80	$83.80	$24.00	$78.00	$15,686
4 inch	$99.00	$99.00	$99.00	$99.00	$37.00	$113.00	$113.00	$113.00	$42.00	$120.10	$120.10	$120.10	$45.00	$108.00	$22,103
6 inch		$121.80	$121.80	$121.80	$63.00		$139.00	$139.00	$72.00		$148.00	$148.00	$76.00	$192.00	$47,058
8 inch		$199.00	$199.00	$199.00	$100.00		$227.00	$227.00	$114.00		$241.00	$241.00	$121.00	$300.00	$79,856
10 inch		$297.00	$297.00	$297.00	$144.00		$339.00	$339.00	$164.00		$360.00	$360.00	$175.00	$450.00	$120,497
12 inch		$402.00	$402.00	$402.00	$210.00		$458.00	$458.00	$239.00		$488.00	$488.00	$255.00	$528.00	$169,694
16 inch		$477.00	$477.00	$477.00			$544.00	$544.00			$578.00	$578.00		$696.00	$169,694
20 inch		$614.00	$614.00	$614.00			$700.00	$700.00			$745.00	$745.00		$948.00	$169,694
24 inch		$771.00	$771.00	$771.00			$879.00	$879.00			$935.00	$935.00		$1,236.00	$169,694

* Master Metered Residential Development

\# Master Metered Residential Development: Eligible Projects (Holly Park)

** per residence

Effective January 1, 2010

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
	Direct Service													Wholesale	
RATE SCHEDULES	Inside City					Outside City				City of Shoreline				Old	New
	Residential	MMRD*	Elig Proj#	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Contract	Contract
Commodity Charge ($/100 Cubic Feet)															
Offpeak Usage (Sept 16-May 15)	$3.18	$3.18	$4.43	$3.18		$3.63	$3.63	$3.63		$3.86	$3.86	$3.86		$1.29	$1.15
Peak Usage (May 16-Sept 15)															
Up to 5 ccf**	$3.50	$3.50	$4.75	$4.07		$3.99	$3.99	$4.64		$4.24	$4.24	$4.94		$1.98	$1.77
Next 13 ccf**	$4.07	$4.07	$5.32	$4.07		$4.64	$4.64	$4.64		$4.94	$4.94	$4.94		$1.98	$1.77
Over 18 ccf**	$10.38	$10.38	$10.38	$4.07		$11.83	$11.83	$4.64		$12.59	$12.59	$4.94		$1.98	$1.77
Usage over base allowance					$20.00				$22.80				$24.30	$0.31	$0.60
Utility Credit ($/month)	$14.94			$8.19		$14.94		$8.19		$14.94		$8.19			
Demand Charge ($/1000 gallons of deficient storage)														$22.00	$22.00
Base Service Charge ($/month/meter)															New Srvc Fee (One Time)
3/4 inch and less	$11.40			$11.40		$13.00		$13.00		$13.80		$13.80			$713
1 inch	$11.80			$11.80		$13.50		$13.50		$14.30		$14.30		$54.00	$1,426
1-1/2 inch	$18.10	$18.10	$18.10	$18.10		$20.60	$20.60	$20.60		$22.00	$22.00	$22.00		$60.00	$3,565
2 inch	$23.20	$23.20	$23.20	$23.20	$15.40	$26.40	$26.40	$26.40	$18.00	$28.10	$28.10	$28.10	$19.00	$66.00	$5,704
3 inch	$74.30	$74.30	$74.30	$74.30	$20.00	$84.70	$84.70	$84.70	$23.00	$90.10	$90.10	$90.10	$24.00	$78.00	$15,686
4 inch	$106.50	$106.50	$106.50	$106.50	$37.00	$121.40	$121.40	$121.40	$42.00	$129.20	$129.20	$129.20	$45.00	$108.00	$22,103
6 inch		$131.00	$131.00	$131.00	$63.00		$149.00	$149.00	$72.00		$159.00	$159.00	$76.00	$192.00	$47,058
8 inch		$199.00	$199.00	$199.00	$100.00		$227.00	$227.00	$114.00		$241.00	$241.00	$121.00	$300.00	$79,856
10 inch		$297.00	$297.00	$297.00	$144.00		$339.00	$339.00	$164.00		$360.00	$360.00	$175.00	$450.00	$120,497
12 inch		$402.00	$402.00	$402.00	$210.00		$458.00	$458.00	$239.00		$488.00	$488.00	$255.00	$528.00	$169,694
16 inch		$477.00	$477.00	$477.00			$544.00	$544.00			$578.00	$578.00		$696.00	$169,694
20 inch		$614.00	$614.00	$614.00			$700.00	$700.00			$745.00	$745.00		$948.00	$169,694
24 inch		$771.00	$771.00	$771.00			$879.00	$879.00			$935.00	$935.00		$1,236.00	$169,694

* Master Metered Residential Development

\# Master Metered Residential Development: Eligible Projects (Holly Park)

** per residence

Effective January 1, 2011

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
	Direct Service													Wholesale	
RATE SCHEDULES	Inside City					Outside City				City of Shoreline				Old	New
	Residential	MMRD*	Elig Proj#	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Residential	MMRD*	Gen Svc	Fire Service	Contract	Contract
Commodity Charge ($/100 Cubic Feet)															
Offpeak Usage (Sept 16-May 15)	$3.62	$3.62	$4.87	$3.62		$4.13	$4.13	$4.13		$4.39	$4.39	$4.39		$1.40	$1.16
Peak Usage (May 16-Sept 15)															
Up to 5 ccf**	$3.98	$3.98	$5.23	$4.63		$4.54	$4.54	$5.28		$4.83	$4.83	$5.62		$2.15	$1.79
Next 13 ccf**	$4.63	$4.63	$5.88	$4.63		$5.28	$5.28	$5.28		$5.62	$5.62	$5.62		$2.15	$1.79
Over 18 ccf**	$11.80	$11.80	$11.80	$4.63		$13.45	$13.45	$5.28		$14.31	$14.31	$5.62		$2.15	$1.79
Usage over base allowance					$20.00				$22.80				$24.30	$0.31	$0.60
Utility Credit ($/month)	$17.02			$9.32		$17.02		$9.32		$17.02		$9.32			
Demand Charge ($/1000 gallons of deficient storage)														$22.00	$22.00
Base Service Charge ($/month/meter)															New Srvc Fee (One Time)
3/4 inch and less	$13.00			$13.00		$14.80		$14.80		$15.80		$15.80			$713
1 inch	$13.40			$13.40		$15.30		$15.30		$16.30		$16.30		$54.00	$1,426
1-1/2 inch	$20.70	$20.70	$20.70	$20.70		$23.60	$23.60	$23.60		$25.10	$25.10	$25.10		$60.00	$3,565
2 inch	$22.90	$22.90	$22.90	$22.90	$15.40	$26.10	$26.10	$26.10	$18.00	$27.80	$27.80	$27.80	$19.00	$66.00	$5,704
3 inch	$84.70	$84.70	$84.70	$84.70	$20.00	$96.60	$96.60	$96.60	$23.00	$102.70	$102.70	$102.70	$24.00	$78.00	$15,686
4 inch	$121.40	$121.40	$121.40	$121.40	$37.00	$138.40	$138.40	$138.40	$42.00	$147.20	$147.20	$147.20	$45.00	$108.00	$22,103
6 inch		$149.40	$149.40	$149.40	$63.00		$170.00	$170.00	$72.00		$181.00	$181.00	$76.00	$192.00	$47,058
8 inch		$199.00	$199.00	$199.00	$100.00		$227.00	$227.00	$114.00		$241.00	$241.00	$121.00	$300.00	$79,856
10 inch		$297.00	$297.00	$297.00	$144.00		$339.00	$339.00	$164.00		$360.00	$360.00	$175.00	$450.00	$120,497
12 inch		$402.00	$402.00	$402.00	$210.00		$458.00	$458.00	$239.00		$488.00	$488.00	$255.00	$528.00	$169,694
16 inch		$477.00	$477.00	$477.00			$544.00	$544.00			$579.00	$579.00		$696.00	$169,694
20 inch		$614.00	$614.00	$614.00			$700.00	$700.00			$745.00	$745.00		$948.00	$169,694
24 inch		$771.00	$771.00	$771.00			$879.00	$879.00			$935.00	$935.00		$1,236.00	$169,694

* Master Metered Residential Development

\# Master Metered Residential Development: Eligible Projects (Holly Park)

** per residence